

REGION IX LOCAL HAZARD MITIGATION PLAN REVIEW TOOL

The *Local Hazard Mitigation Plan Review Tool* demonstrates how the Local Hazard Mitigation Plan meets the regulation in 44 CFR §201.6 and offers State and FEMA Mitigation Planners an opportunity to provide feedback to the community.

- The **Regulation Checklist** provides a summary of FEMA's evaluation of whether the plan has addressed all requirements.
- The **Plan Assessment** identifies the plan's strengths as well as documents areas for future improvement. This section also includes a list of resources for implementation of the plan.
- The **Multi-Jurisdiction Summary Sheet** is a mandatory worksheet for multi-jurisdictional plans that is used to document which jurisdictions are eligible to adopt the plan.
- The **Hazard Identification and Risk Assessment Matrix** is a tool for plan reviewers to identify if all components of Element B are met.

Jurisdiction: Los Angeles County Metropolitan Transportation Authority (LA Metro)	Title of Plan: All-Hazards Mitigation Plan	Date of Plan: 11-20-2021
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State Reviewer: Phillip John Labra	Title: Sr. Local Mitigation Planner	Date: 3-2-2022
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FEMA Reviewer: Philip Gilbertson	Title: Community Planner	Date: 3/24/2022
Date Received in FEMA Region IX	3/4/2022	
Date Not Approved	4/5/2022	
Date Approvable Pending Adoption	7/13/2022	
Date Approved		

SECTION 1:
REGULATION CHECKLIST

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
ELEMENT A. PLANNING PROCESS				
A1. Does the plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))	a. Does the plan provide documentation of how the plan was prepared? Note: This documentation must include the schedule or timeframe and activities that made up the plan's development as well as who was involved.	Table: Planning Phases Progression Plan Methodology Planning Team Involvement Table: Planning Team Level Participation Table: Planning Team Timeline Part IV: Attachments Web Posting Planning Team Minutes and Attendance p.11-17, p.237-252	X	
	b. Does the plan list the jurisdiction(s) participating in the plan that are seeking approval?	Credits, Acknowledgements Introduction Planning Process Planning Team Level of Participation p.7	X	
	c. Does the plan identify who represented each jurisdiction? (At a minimum, it must identify the jurisdiction represented and the person's position or title and agency within the jurisdiction.)	Credits Point of Contact Table: Planning Team Level of Participation p.2-3	X	

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
A2. Does the plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))	a. Does the plan document an opportunity for neighboring communities, local, and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development, as well as other interested parties to be involved in the planning process?	Secondary Stakeholders Attachments: External Agencies Email Invite Attachments: Web Posting, Secondary Stakeholder Input p.7-8, p.18, p.235	X	
	b. Does the plan identify how the stakeholders were invited to participate in the process?	Secondary Stakeholders Attachments: External Agencies Email Invite p.7-8, p.18, p.235	X	
A3. Does the plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))	a. Does the plan document how the public was given the opportunity to be involved in the planning process?	Planning Phases Progression Secondary Stakeholders Attachments: Web Posting p.18, p.235-236	X	
	b. Does the plan document how the public's feedback was incorporated into the plan?	Secondary Stakeholders p.18, p.228-234	X	
A4. Does the plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))		Planning Approach Use of Existing Data p.21-22, p.31	X	

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))		Continued Public Involvement p.223-224	X	
A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))	a. Does the plan identify how, when, and by whom the plan will be monitored (how will implementation be tracked) over time?	Planning Phases Progression Plan Maintenance - Method and Scheduling of Plan Implementation Monitoring and Implementing the Plan Evaluating and Updating the Plan p.219-220	X	
	b. Does the plan identify how, when, and by whom the plan will be evaluated (assessing the effectiveness of the plan at achieving stated purpose and goals) over time?	Monitoring and Implementing the Plan Evaluating and Updating the Plan p.219, 221, 223	X	
	c. Does the plan identify how, when, and by whom the plan will be updated during the 5-year cycle?	Monitoring and Implementing the Plan Method and Scheduling of Plan Implementation Evaluating and Updating the Plan Annual Implementation Report p.219, p.223	X	
<u>ELEMENT A: REQUIRED REVISIONS</u> None				

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT				
(Reviewer: See Section 4 for assistance with Element B)				
B1. Does the plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))	a. Does the plan include a general description of all natural hazards that can affect each jurisdiction?	Part II Risk Assessment - Hazard Identification Earthquake Hazard - Local Conditions Flood Hazard - Local Conditions Wildfire Hazard – Local Conditions Windstorm Hazard – Local Conditions Tsunami Hazard – Local Conditions Landslide Hazard – Local Conditions Climate Change Hazard - Local Conditions Epidemic/Pandemic/Vector-Borne Disease Hazard - Local Conditions	X	
	b. Does the plan provide rationale for the omission of any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area?	Part II Risk Assessment, Hazard Identification Profiling Hazard Events Table: Vulnerability – Location, Extent, and Probability p.31	X	
	c. Does the plan include a description of the type of all natural hazards that can affect each jurisdiction?	Part II Risk Assessment, Hazard Identification Profiling Hazard Events Table: Vulnerability – Location, Extent, and Probability	X	

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
	d. Does the plan include a description of the location for all natural hazards that can affect each jurisdiction?	Table: Vulnerability – Location, Extent, and Probability	X	
	e. Does the plan include a description of the extent for all natural hazards that can affect each jurisdiction?	Table: Calculated Priority Risk Index Ranking for Metro Service Area Table: Vulnerability – Location, Extent, and Probability for Metro Service Area	X	

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
B2. Does the plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))	a. Does the plan include information on previous occurrences of hazard events for each jurisdiction?	Table: Vulnerability – Location, Extent, and Probability for Metro Service Area Earthquake Hazard - Previous Occurrences of Earthquakes Wildfire Hazard - Previous Occurrences of Earthquakes Windstorm Hazard - Previous Occurrences of Earthquakes Tsunami Hazard - Previous Occurrences of Earthquakes Landslide Hazard - Previous Occurrences of Earthquakes Flood Hazards, Previous Occurrences of Flooding in the City Climate Change Hazards, Previous Occurrences of Climate Change in the City Epidemic/Pandemic/Vector-Borne Disease Hazards, Previous Occurrences of Epidemic/Pandemic/Vector-Borne Disease	X	
	b. Does the plan include information on the probability of future hazard events for each jurisdiction?	Table: Calculated Priority Risk Index Ranking Table: Vulnerability – Location, Extent, and Probability for Metro Service Area	X	

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))	a. Is there a description of each hazard's impacts on each jurisdiction (what happens to structures, infrastructure, people, environment, etc.)?	Table: Critical Facilities Vulnerable to Hazards Earthquake Hazards, Impact of Earthquakes in the City Wildfire Hazard - Impact of Wildfire in the City Windstorm Hazard - Impact of Windstorm in the City Tsunami Hazard - Impact of Tsunami in the City Landslide Hazard - Impact of Landslides in the City Flood Hazard – Impact of Flooding in the City Climate Change Hazard - Impact of Climate Change in the City Epidemic/Pandemic/Vector-Borne Diseases Hazards, Impact of Epidemic/Pandemic/Vector-Borne Diseases in the City	X	

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
	b. Is there a description of each identified hazard's overall vulnerability (structures, systems, populations, or other community assets defined by the community that are identified as being susceptible to damage and loss from hazard events) for each jurisdiction?	Table: Vulnerability – Location, Extent, and Probability in Metro Service Area Capability Assessment/Inventory of Existing Assets Table: Critical Facilities Vulnerable to Hazards Earthquake Hazard - Local Conditions Wildfire Hazard, Local Conditions Windstorm Hazard - Local Conditions Tsunami Hazard - Local Conditions Landslide Hazard - Local Conditions Flood Hazard - Local Conditions Climate Change Hazard - Local Conditions Epidemic/Pandemic/Vector-Borne Diseases Hazard - Local Conditions Attachments: HAZUS Reports	X	
B4. Does the plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))		Repetitive Loss Properties -- NFIP, 8; p.8-9	X	
<u>ELEMENT B: REQUIRED REVISIONS</u>				
None				

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)		Met	Not Met		
Regulation (44 CFR 201.6 Local Mitigation Plans)							
ELEMENT C. MITIGATION STRATEGY							
C1. Does the plan document each jurisdiction’s existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))				a. Does the plan document each jurisdiction’s existing authorities, policies, programs and resources?	Capability Assessment – Existing Processes and Programs Use of Existing Data	X	
				b. Does the plan document each jurisdiction’s ability to expand on and improve these existing policies and programs?	Capability Assessment – Existing Processes and Programs Matrix: Mitigation Actions Implementation through Existing Programs	X	
C1a							
Planning	Admin	Financial	Outreach				
Met	Met	Met	Met				
20-22	18-20	18-20; Comprehensive Annual Financial Report (2018), 21	18-20				
C1b Expand and Improve							
Planning	Admin	Financial	Outreach				
Met	Met	Met	Met				
MH-3/5 (158) MH-10/11 (159) CC-1 (163) CC-17/18 (169) MH-5 (172) EQ-2/3 (173) EQ-1/2 (187) LND-3 (190) WND-1/TSU-1 (190) WF-1 (188)	MH-1 (171, 193) MH-6 (172) FLD-2 (188)	221	Community Relations, 19				
C2. Does the plan address each jurisdiction’s participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))					National Flood Insurance Program Flood Hazards, National Flood Insurance Program Matrix: Mitigation Actions, Flood Action Items p.8; 93	X	

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
C3. Does the plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))		Goals Matrix: Mitigation Actions p.145-146	X	
C4. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))	a. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects to reduce the impacts from hazards?	Part III: Mitigation Strategies Matrix: Mitigation Actions p.144-145	X	
	b. Does the plan identify mitigation actions for every hazard posing a threat to each participating jurisdiction?	Matrix: Mitigation Actions See p.150	X	
	c. Do the identified mitigation actions and projects have an emphasis on new and existing buildings and infrastructure?	Part III: Mitigation Strategies Building and Infrastructure Matrix: Mitigation Actions	X	
C5. Does the plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))	a. Does the plan explain how the mitigation actions will be prioritized (including cost benefit review)?	Benefit/Cost Ratings Priority Rating Matrix: Mitigation Actions Economic Analysis of Mitigation Projects FEMA Benefit-Cost Analysis Guidelines p.146-148; 221-222	X	

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
	b. Does the plan identify the position, office, department, or agency responsible for implementing and administering the action, potential funding sources and expected timeframes for completion?	Capability Assessment – Existing Processes and Programs Matrix: Mitigation Actions p.150-218; 221	X	
C6. Does the plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))	a. Does the plan identify the local planning mechanisms where hazard mitigation information and/or actions may be incorporated?	Implementation through Existing Programs Capability Assessment – Existing Processes and Programs -- Mitigation Actions Matrix, 150 p.144, 220-221	X	
	b. Does the plan describe each community's process to integrate the data, information, and hazard mitigation goals and actions into other planning mechanisms?	Implementation through Existing Programs Capability Assessment – Existing Processes and Programs p. 220-221	X	
	c. The updated plan must explain how the jurisdiction(s) incorporated the mitigation plan, when appropriate, into other planning mechanisms as a demonstration of progress in local hazard mitigation efforts.	Implementation through Existing Programs Matrix: Mitigation Actions	X	

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
ELEMENT C: REQUIRED REVISIONS				
None				
ELEMENT D. PLAN REVIEW, EVALUATION, AND IMPLEMENTATION (Applicable to plan updates only)				
D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))	N/A			
D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))	N/A			
D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))	N/A			
ELEMENT D: REQUIRED REVISIONS				
None				
ELEMENT E. PLAN ADOPTION				
E1. Does the plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))	Pending APA status from FEMA.			X
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))	N/A			
ELEMENT E: REQUIRED REVISIONS				
E1. Once granted APA status, the plan must be formally adopted by the local jurisdiction within 12-months. Upon receipt of the formal adoption documentation, FEMA will approve the plan and the jurisdiction will be eligible for designated pre-disaster mitigation grant opportunities.				
ELEMENT F. ADDITIONAL STATE REQUIREMENTS (Optional for State Reviewers only; not to be completed by FEMA)				
F1.				
F2.				
ELEMENT F: REQUIRED REVISIONS				

SECTION 2: PLAN ASSESSMENT

A. Plan Strengths and Opportunities for Improvement

This section provides a discussion of the strengths of the plan document and identifies areas where these could be improved beyond minimum requirements.

Element A: Planning Process

Strengths:

- 1) Easy to follow description of the planning process and planning team participation in plan development. Excellent use of a table (p.13) to outline stakeholder actions throughout the process.
- 2) Excellent use of a table (ref. p.228) to identify how secondary stakeholder input was gathered and incorporated into the plan. Consider expanding this to include public comments in future updates. This information will provide specific direction for the next plan update.

Opportunities for Improvement:

- 1) Public/Stakeholder Engagement: the timeline included in the planning process indicates that public engagement was not sought until 12+ months into the planning process, following creation of the draft. We strongly recommend a more robust public engagement process earlier in the planning process to ensure public and external feedback is incorporated and the plan accounts for that feedback in areas such as, planning process, mitigation action prioritization, and action implementation.
- 2) Equity Considerations: while not required, the plan made little or no mention of equity as a planning consideration. We encourage planning teams to explicitly consider how equity may factor into hazard mitigation planning, the risk and vulnerability assessment, and the selection and prioritization of mitigation actions.

Element B: Hazard Identification and Risk Assessment

Strengths:

- 1) The use of the Calculated Priority Risk Index (ref. p.31-32) made is easy to understand how the identified hazards were prioritized and which factors were considered. In addition to the CRPI rankings, it would be helpful from a plan review standpoint, to identify which hazards are of most concern to LA Metro using a simple 'low-medium-high' schema.

Opportunities for Improvement:

1) Within the risk and vulnerability assessment for each hazard, consider including a more detailed analysis of specific risks and vulnerabilities to LA Metro facilities, operations, and patrons. While just such an analysis was included for earthquakes, we encourage you to expand this assessment to all hazard profiles. General descriptions of hazard impacts are useful but may not directly affect LA Metro areas and scope of responsibility. A more robust analysis of affected populations (demographics), geographic locations, potential monetary losses, and effects on LA Metro operations, would help inform the selection of mitigation actions, as well as identify areas for partnership with neighboring or overlapping jurisdictions.

2) Data Sources: Consider exploring and including data sources that break-down hazards, impacts (including past losses), and risk at the local level. Consider the use of data at the county or census tract level (ref. Spatial Hazard Events and Losses Database – SHELDUS; FEMA’s National Risk Index) in future updates.

Element C: Mitigation Strategy

Strengths:

- 1) Easy to follow capabilities assessment (ref. C1.a. & C1.b.) on p.18.
- 2) Great use of table to identify mitigation actions, implementation details, which mitigation goals each action addresses, priority, etc.. Use this as a benchmark for future updates.
- 3) Glad to see an acknowledgement to begin the update planning process at least one year in advance (ref. p.221). A more conservative estimate might be to begin at least 18-months in advance in order to allow for CalOES/FEMA review processes.

Opportunities for Improvement:

1) Please note: the ‘Table: Mitigation Actions Matrix’ identified *Pre-Disaster Mitigation Grants* as a potential funding source. The Pre-Disaster Mitigation (PDM) Grant Program is authorized by Section 203 of the Stafford Act. As a result of amendments by the Disaster Relief and Recovery Act of 2018, the Pre-Disaster Mitigation program is being replaced with the new Building Resilient Infrastructure and Communities (BRIC) program.

2) It is strongly encouraged to use ‘problem statements’ in developing mitigation goals, objectives, actions, and/or strategies. Problem statements are succinct summaries of a community’s vulnerabilities to a given hazard and may include the known or suggested causes or contributing factors to vulnerability. These plain language problem statements can then be used to organize and craft plan goals and subsequent objectives, actions, or strategies (for reference, see California Adaptation Planning Guide, 2020, CalOES).

3) For updates and to meet criteria C6.a, C6.b., and C6.c. consider how this HMP may be incorporated, integrated, or aligned with neighboring or overlapping jurisdiction plans, programs, and policies. Recognizing the limits of LA Metro's authorities, plan and strategy alignment is a crucial considerations for ensuring mitigation actions are synchronized and work in concert, vice working against one another.

Element D: Plan Update, Evaluation, and Implementation (*Plan Updates Only*)

N/A

B. Resources for Implementing and Updating Your Approved Plan

This resource section is organized into three categories:

- 1) Guidance and Resources
- 2) Training Topics and Courses
- 3) Funding Sources

Guidance and Resources

Local Mitigation Planning Handbook

<https://www.fema.gov/media-library/assets/documents/31598>

Beyond the Basics

<http://mitigationguide.org/>

Mitigation Ideas

<https://www.fema.gov/media-library/assets/documents/30627>

Plan Integration: Linking Local Planning Efforts

<https://www.fema.gov/media-library/assets/documents/108893>

Integrating Disaster Data into Hazard Mitigation Planning

<https://www.fema.gov/media-library/assets/documents/103486>

Integrating Historic Property and Cultural Resource Considerations into Hazard Mitigation Planning

<https://www.fema.gov/ar/media-library/assets/documents/4317>

Community Rating System User Manual

<https://www.fema.gov/media-library/assets/documents/8768>

U.S. Climate Resilient Toolkit

<https://toolkit.climate.gov/>

2014 National Climate Assessment

<http://nca2014.globalchange.gov/>

Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation

http://ipcc-wg2.gov/SREX/images/uploads/SREX-All_FINAL.pdf

FY15 Hazard Mitigation Assistance Unified Guidance

<https://www.fema.gov/media-library/assets/documents/103279>

Climate Resilient Mitigation Activities for Hazard Mitigation Assistance

<https://www.fema.gov/media-library/assets/documents/110202>

Training

More information at <https://training.fema.gov/emi.aspx> or through your State Training Officer

Mitigation Planning

IS-318 Mitigation Planning for Local and Tribal Communities

<https://training.fema.gov/is/courseoverview.aspx?code=is-318>

IS-393 Introduction to Hazard Mitigation

<https://training.fema.gov/is/courseoverview.aspx?code=is-393.a>

G-318 Preparing and Reviewing Local Plans

G-393 Mitigation for Emergency Managers

Hazard Mitigation Assistance (HMA) Grant Programs

IS-212.b Introduction to Unified HMA

<http://www.training.fema.gov/is/courseoverview.aspx?code=IS-212.b>

IS-277 Benefit Cost Analysis Entry Level

<http://www.training.fema.gov/is/courseoverview.aspx?code=IS-277>

E-212 HMA: Developing Quality Application Elements

E-213 HMA: Application Review and Evaluation

E-214 HMA: Project Implementation and Programmatic Closeout

E-276 Benefit-Cost Analysis Entry Level

GIS and Hazus-MH

IS-922 Application of GIS for Emergency Management

<http://www.training.fema.gov/is/courseoverview.aspx?code=IS-922>

E-190 ArcGIS for Emergency Managers

E-296 Application of Hazus-MH for Risk Assessment

E-313 Basic Hazus-MH

Floodplain Management

E-273 Managing Floodplain Development through the NFIP

E-278 National Flood Insurance Program/ Community Rating System

Potential Funding Sources

Hazard Mitigation Grant Program

POC: FEMA Region IX and State Hazard Mitigation Officer

Website: <https://www.fema.gov/hazard-mitigation-grant-program>

Pre-Disaster Mitigation Grant Program

POC: FEMA Region IX and State Hazard Mitigation Officer

Website: <https://www.fema.gov/pre-disaster-mitigation-grant-program>

Flood Mitigation Assistance Grant Program

POC: FEMA Region IX and State Hazard Mitigation Officer

Website: <https://www.fema.gov/flood-mitigation-assistance-grant-program>

Emergency Management Performance Grant Program

POC: FEMA Region IX

Website: <https://www.fema.gov/emergency-management-performance-grant-program>

SECTION 4:
HAZARD IDENTIFICATION AND RISK ASSESSMENT MATRIX (OPTIONAL)

INSTRUCTIONS: This matrix can be used by the plan reviewer to help identify if all of the components of Element B have been met. List out natural hazard names that are identified in the plan in the column labeled “Hazards” and put a “Y” or “N” for each component of Element B.

HAZARD IDENTIFICATION AND RISK ASSESSMENT MATRIX								
Hazard	Requirement Met? (Y/N)							
	Type	Location	Extent	Previous Occurrences	Probability	Impacts	Vulnerability	Mitigation Actions
Earthquake <i>San Andreas M7.8 – 2.95 (CPRI Rank)</i> <i>Newport Inglewood M7.2 – 2.80</i> <i>Sierra Madre M7.2 – 2.50</i>	Earthquake Hazards, 58 P.58, 67	Fault Zones: - San Andreas, 61; Sierra Madre, 63; Newport-Inglewood Fault, 65 -- Table. Vulnerability, Location, Extent and Probability for MSA, 34 ----- p.60-66	Fault Zones: - San Andreas, 61; Sierra Madre, 63; Newport-Inglewood Fault, 65 ----- p.58, 62, 66	Previous Occurrences of Earthquakes, 59 -- Table. Vulnerability, Location, Extent and Probability for MSA, 34 ----- p.59	Table. CPRI Ranking, 33 ---- p.32-33	Earthquake Related Hazards, 67 Impact of EQ, 70 ---- p.65, 67, 70, HAZUS analysis (p.253)	Table. Critical Facilities Vulnerable to Hazards, pg. 38 ----- p.63, 65, 67, HAZUS analysis (p.253)	BFPM: EQ-1 EM: EQ-2/3/4 MOW: EQ-1/2 PM: EQ-1 ---- p.187, 150, 197, 171-173, 194,
Flood <i>2.45 (CPRI Rank)</i>	Flood Hazards, 87	Table. Vulnerability, Location, Extent and Probability for MSA, 34 -- Flood Hazards, 89 -- Map: Metro Critical Assets Impacted by Flooding, 91 --	Flood Hazards, 90 -- Map: Metro Critical Assets Impacted by Flooding, 91 -- Definitions of FEMA Flood Zone Designations, 95	Table. Vulnerability, Location, Extent and Probability for MSA, 34 -- Previous Occurrences of Flooding, 88	Table. CPRI Ranking, 33 -- National Flood Insurance Program, 93 -- Map: Flood Hazard Zones, 94	Map: Flood Risk Map, 92 -- Impact of Flooding, 97	Table. Critical Facilities Vulnerable to Hazards, pg. 38 -- Map: Metro Critical Assets Impacted by Flooding, 91 -- Map: Flood Risk Map, 92	BFPM: FLD-1 ESC: FLD-1/2/3/4 EM: FLD-1 General Services: FLD-1/2 MOW: FLD-1/2/3 ----- p.151, 160-162, 174, 180, 187-188, 194, 198

HAZARD IDENTIFICATION AND RISK ASSESSMENT MATRIX								
Hazard	Requirement Met? (Y/N)							
	Type	Location	Extent	Previous Occurrences	Probability	Impacts	Vulnerability	Mitigation Actions
		Map: Flood Risk Map, 92						
Hazard	Type	Location	Extent	Previous Occurrences	Probability	Impacts	Vulnerability	Mitigation Actions
Wildfire 2.60 (CPRI Rank)	Wildfire Hazards, 71 Local Conditions, 74	Local Conditions, 74 -- Map: Fire Hazard Severity Zones, 76 -- Table. Vulnerability, Location, Extent and Probability for MSA, 34	Map: Fire Hazard Severity Zones, 76 -- p.76-77	Previous Occurrences of Wildfire, 72 -- Table: County Destructive Fires Since 2000, 73 -- Table. Vulnerability, Location, Extent and Probability for MSA, 34	Table. CPRI Ranking, 33	Table: County Destructive Fires Since 2000, 73 -- Local Conditions, 77 -- Impact of Wildfire, 79 ----- p.77-79	Table. Critical Facilities Vulnerable to Hazards, pg. 38 -- Map: Metro Critical Assets Impacted by Wildfire, 77 -- Map: Current Wildfire Exposure(s), 78	WF: FF-1 General Services: MH-5 MPW: WF-1/2 ----- p.174, 188, 195, 217
Landslide 2.20 (CPRI Rank)	Landslide Hazards, 80 -- Local Conditions, 83 ----- p.67, 80, 83	Table. Vulnerability, Location, Extent and Probability for MSA, 34 -- Table: Landslides in LA County since 1928, 82 -- Local Conditions, 83 -- Map: Metro Critical Assets Impacted by Landslide, 85 ----- p.68, 85	Map: Metro Critical Assets Impacted by Landslide, 85 ----- ----- p.68, 85	Previous Occurrences of Landslides, 81 -- Table: Landslides in LA County since 1928, 82 -- Table. Vulnerability, Location, Extent and Probability for MSA, 34 p.81-83	Table. CPRI Ranking, 33 -- Local Conditions, 83	Landslide Characteristics, 80 -- Table: Landslides in LA County since 1928, 82 -- Local Conditions, 83 -- Impacts of Landslides, 86	Table. Critical Facilities Vulnerable to Hazards, pg. 38 -- Local Conditions, 83 -- Map: Metro Critical Assets Impacted by Landslide, 85	BFBM: LND-1/2 ESC: LND-1/2/3/4/5 MOW: LND1/2/3 ----- p.151, 152, 162-163, 189, 199
Windstorm 2.45 (CPRI Rank)	Windstorm Hazards, 115 --	Table. Vulnerability, Location, Extent	Table: High Wind, Strong Wind and	Table. Vulnerability, Location, Extent	Table. CPRI Ranking, 33	What is Susceptible to Windstorms? 116	Table. Critical Facilities Vulnerable to Hazards, pg. 38	BFBM: WND-1 MOW: WND-1 p.152, 190

HAZARD IDENTIFICATION AND RISK ASSESSMENT MATRIX								
Hazard	Requirement Met? (Y/N)							
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