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Washington State Seismic Mitigation Policy Gap Analysis

A Cross-State Comparison

Scott B. Miles, Ph.D.

Brian D. Gouran, L.G.

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WESTERN WASHINGTON UNIVERSITY

Western Washington University, 516 High Street,
Bellingham WA 98225-9085 USA|+1 360.650.2707
www.wwu.edu/huxley/resilience

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EXECUTIVE SUMMARY

The purpose of this study is to understand how Washington State compares with other states with respect to state-level seismic mitigation policies. This facilitates the identification of potential Washington State policy gaps that might be filled with policies similar to those of other states. This study was accomplished by compiling, synthesizing, and analyzing state-level policies listed in the mitigation plan of 47 states (3 could not be obtained by the completion of the study). A catalog describing each of the compiled policies – legislation or executive orders – was assembled. A spreadsheet database was created in order to synthesize, search, and analyze the policies. Quantitative analysis was conducted using a cross-state analysis and two different computed indicators based on seismic risk and policy count. The cross-state analysis facilitates a broad assessment of Washington State's policy coverage given its seismic risk, as well as identification of policies from states with more seismic mitigation policies than Washington State.

According to FEMA, Washington State has the third highest annualized earthquake loss ratio (AERL) – seismic risk – in the United States, behind California and Alaska. However, based on the analysis of policies listed in state mitigation plans, Washington State has only an average number of policies that facilitate seismic mitigation. Five states have more seismic mitigation policies, while six have the same number as Washington State. In comparison to other states, two similar indicators show that Washington State appears to lack enough seismic mitigation legislation given its high seismic risk (see table on the next page). The first indicator, referred in this study as the Policy Risk Ratio (PRR), quantitatively compares the ratio of Washington State's legislation count to AERL with the same ratio for California (that happens to have the maximum legislation count and AERL). Assuming California as the standard, an adequate policy coverage for Washington State's seismic risk would be a PRR = 1, when in fact the PRR was computed to be 0.36. The second indicator – Proportional Risk Count (PRC) – uses the same variables but expresses the result in terms of how many policies California, as the standard, would have if it had the same AERL as Washington State (or any other state). The PRC for Washington State was computed to be 11.26, meaning that California would have about 11 more pieces of legislation than Washington currently does if it had Washington State's seismic risk. According to both indicators, Washington State has the poorest policy coverage of any state with significant seismic risk, except for Alaska.

It's possible that Washington State could fill its policy gaps identified by this study by passing similar legislation or executive orders as moderate-to-high seismic risk states with better policy coverage. In aggregate, California, Missouri, Nevada, Oregon and Utah have adopted policies related to school safety, hospital safety, funding for seismic mitigation, seismic advisory commissions, seismic monitoring, and earthquake insurance. Washington State lacks formal policies related to these topics, even though it has higher seismic risk than all but one of those states. This study did not make any assessment regarding the relative efficacy of policies adopted by each state and so does not make any conclusion regarding whether or not Washington State should model a new policy based on a particular policy of another state.

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Annualized Earthquake Loss Ratio ($/ million $)		Legislation Count		Policy Risk Ratio		Proportional Risk Count	
California	**1452.00**	**California**	**30**	North Dakota	193.60	Missouri	8.50
Alaska	951.00	Oregon	17	Minnesota	96.80	North Dakota	7.96
Washington	***884.00***	Missouri	13	Florida	64.53	Florida	7.88
Oregon	850.00	Nevada	10	Wisconsin	60.50	Virginia	6.34
Utah	817.00	Florida	8	Michigan	40.33	Colorado	6.17
Nevada	617.00	North Dakota	8	Iowa	32.27	Wisconsin	4.92
Hawaii	488.00	Virginia	7	Nebraska	13.20	Michigan	4.88
South Carolina	363.00	Arkansas	7	South Dakota	12.10	Mississippi	4.58
Montana	304.00	Mississippi	7	Maryland	11.52	Maryland	4.57
Arkansas	273.00	Colorado	7	Virginia	10.59	Iowa	3.88
Missouri	218.00	Montana	7	Kansas	10.37	Vermont	3.87
New Mexico	205.00	Utah	7	Colorado	8.47	Nebraska	2.77
Wyoming	187.00	***Washington***	***7***	Ohio	5.58	South Dakota	2.75
Mississippi	117.00	Vermont	6	Rhode Island	4.03	North Carolina	2.72
Idaho	106.00	Maryland	5	Texas	4.03	Kansas	2.71
Vermont	103.00	Michigan	5	Pennsylvania	3.92	Ohio	2.46
Alabama	93.00	Wisconsin	5	North Carolina	3.12	Rhode Island	2.26
New Hampshire	92.00	North Carolina	4	Mississippi	2.90	Pennsylvania	2.24
Arizona	79.00	Hawaii	4	Missouri	2.89	New Hampshire	2.10
Georgia	77.00	South Carolina	4	Massachusetts	2.85	Minnesota	1.98
Maine	74.00	Iowa	4	West Virginia	2.85	Massachusetts	1.95
Indiana	73.00	New Hampshire	4	Vermont	2.82	Oklahoma	1.84
Illinois	71.00	Alabama	3	Oklahoma	2.59	New Jersey	1.70
New York	67.00	Wyoming	3	New Jersey	2.30	New York	1.62
New Jersey	63.00	New Jersey	3	New York	2.17	Arizona	1.37
North Carolina	62.00	Arizona	3	Connecticut	2.15	Arkansas	1.36
Oklahoma	56.00	Idaho	3	New Hampshire	2.10	West Virginia	1.30
Massachusetts	51.00	Massachusetts	3	Arizona	1.84	Alabama	1.08
Connecticut	45.00	Pennsylvania	3	Alabama	1.56	Connecticut	1.07
Colorado	40.00	Rhode Island	3	Idaho	1.37	Idaho	0.81
Pennsylvania	37.00	South Dakota	3	Illinois	1.36	Texas	0.75
Rhode Island	36.00	Alaska	3	Indiana	1.33	Montana	0.72
West Virginia	34.00	Kansas	3	Maine	1.31	Illinois	0.53
Virginia	32.00	Nebraska	3	Georgia	1.26	Indiana	0.49
Ohio	26.00	New York	3	Arkansas	1.24	Maine	0.47
Maryland	21.00	Ohio	3	Montana	1.11	Georgia	0.41
Kansas	14.00	Oklahoma	3	**California**	**1.00**	**California**	**0.00**
South Dakota	12.00	Connecticut	2	Oregon	0.97	Louisiana	-0.25
Texas	12.00	Georgia	2	Nevada	0.78	Oregon	-0.56
Louisiana	12.00	Illinois	2	Wyoming	0.78	Wyoming	-0.86
Nebraska	11.00	Maine	2	South Carolina	0.53	New Mexico	-2.24
Florida	6.00	Minnesota	2	New Mexico	0.47	Nevada	-2.75
Michigan	6.00	New Mexico	2	Utah	0.41	South Carolina	-3.50
Iowa	6.00	West Virginia	2	Hawaii	0.40	Hawaii	-6.08
Wisconsin	4.00	Indiana	2	***Washington***	***0.38***	Utah	-9.88
North Dakota	2.00	Texas	1	Alaska	0.15	***Washington***	***-11.26***
Minnesota	1.00	Louisiana	0	Louisiana	0.00	Alaska	-16.65

Note: Delaware, Kentucky and Tennessee are not included because no hazard mitigation plan could be obtained.

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INTRODUCTION

Federal disaster policies, such as the Robert T. Stafford Act (Stafford Act), the Disaster Mitigation Act of 2000 (DMA 2000), and the Earthquake Reduction Act are structured to encourage state and local governments to implement their own polices to mitigate future disaster losses. It has been argued that the structure of these types of federal policies has resulted in significant variability in the development and implementation of disaster policies at the state level (Gerber, 2007). The existence of state-level seismic mitigation policies (or lack of) may also depend on political will and institutional capacity that can foster (or limit) the ability of states to successfully develop and adopt policies. For example, California and Oregon have several policies related to earthquake mitigation, while Alaska and Louisiana have few. Examples of California's state seismic policies include the Field Act (aimed at improving seismic safety of public schools), the Alquist-Priolo Earthquake Special Studies Zone Act (aimed at identifying and disclosing active faults to reduce development within designated fault zones,) and the Unreinforced Masonry Building Law (aimed at identifying vulnerable buildings and encouraging the mitigation of those buildings) (May, 1999).

Arguably, California has several earthquake mitigation policies because it has the highest seismic risk in the country. California has had several past earthquakes and many of its seismic faults have been thoroughly studied. Additionally, California has a large population exposed to those hazards. However, California is not the only state with considerable earthquake risk. Thirty-nine states are fully or partially located in zones classified as having the potential for damaging earthquakes, while approximately 52 million people in the country is exposed to some seismic hazard (May, 2000). Of course, past and future seismic hazards and risk vary significantly between states across the United States, resulting in different actual and perceived need for earthquake-specific mitigation policies. However, there is still a need for state-level policies aimed at improving public safety, reducing earthquake-induced losses and improving recovery from damaging earthquakes. The specific question becomes how much need and what level of policy response is necessary to address the need? In other words, what states might benefit from adoption of additional seismic mitigation policies?

This study addresses the above question by analyzing the number of seismic mitigation policies for each state with respect to the state's relative earthquake risk. Specifically, this study looks to see where Washington State stands with respect to seismic mitigation policies relative to its seismic risk and other states' similar standing. The goal of the study was to assist Washington State in evaluating what, if any, "gaps" exist in their existing policies for seismic mitigation in comparison to policies developed and implemented throughout the United States. A gap analysis was done by reviewing the scholarly literature on hazard mitigation polices, compiling descriptions of state policies related to seismic mitigation across the country, creating a searchable database of these policies, and developing a means for comparing the relative number of policies between each state considering seismic risk. The gap analysis is intended as a high-level tool to help Washington State (and other states) determine if adequate polices are in place to reduce earthquake-related losses. It is not an in-depth evaluation of the effectiveness or merits of individual policies, nor the reasons behind the existence of possible policy gaps. This report describes the study in the four sections to follow – Literature Review, Methodology, Findings, and Conclusions.

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LITERATURE REVIEW

Federal policies such as the Stafford Act, Disaster Mitigation Act of 2000, and the Earthquake Reduction Act form umbrella policies at the federal level that encourage individual states to develop and adopt hazard mitigation policies to address specific regional hazards that may occur within the individual states. This has allowed states to implement mitigation policies that are aimed at the hazards that occur most commonly in their region. However, the structure of these federal policies has also had an unintended disjunctive effect on the development of many state and local policies, resulting in significant policy gaps between and within seismic-prone regions in the United States (May, 1991). May (1991) assessed federal policies and how these policies were being implemented at the state and local levels, finding that state and local seismic policy regimes do not necessarily correlate to regions of greater seismic risk. Risk perception and awareness results in regional differences in the development and implementation of earthquake policies and preparedness. Although seismic risks are commonly recognized and acknowledged in regions with moderate to high seismic, there is relatively little active policy engagement or attention from stakeholders and decision makers with the exception of the immediate aftermath of major events, most notably in California.

Some seismic policy gaps have been identified for individual states by advisory councils, such as the California Seismic Safety Commission (Wiley, 2000) or the Washington State Seismic Safety Committee (1991). Few studies have been aimed at directly comparing states with respect to adopted state legislation or other state-level policies. Berke et al. (1996) studied the variability and effectiveness of state mandates for hazard mitigation planning at the local level, looking at California, Florida, North Carolina, Texas, and Washington. Analyzing 139 local plans, they found that state mandates result in plans in communities that would not otherwise create a plan and plans of higher quality than plans made without a mandate. A nation-wide comparative analysis of state building codes and variability in enforcement mechanisms was conducted by May (1997). The analysis of the thirty-three states with building codes was done based on the type of code, the role of regulatory enforcement, amount of discretion for local governments, the existence of revocation authority, and the existence of state review. This study utilized a hierarchical cluster analysis to group states as Minimalistic, Enabling, Mandatory, or Energetic. Other studies examine the context or efficacy of local policies within a state or an individual state policy (e.g., May, 1989; Burby, 1998; Sexton, 2008; Puszkin-Chevlin and Esnard, 2009).

Most of the cross-state policy studies focus on local adoption and implementation of policies, such as building codes, land use controls, or planning requirements (e.g., Beatley and Berke, 1992; Berke and Beatley, 1992), rather than state-level adoption and related policy gaps. Berke and Beatley (1992) surveyed local seismic hazard mitigation programs in 260 communities across 22 states with higher seismic risk. They found that earthquake mitigation activities at the local level are much greater in California than other states. It's suggested that improvements at the local level require substantial changes at the federal level and by the other state governments. Using the same dataset, Berke et al. (1989) evaluated local seismic mitigation programs using 21 criteria related to development regulations, building standards, planning, property acquisition, taxation and fiscal policies, and information dissemination. They found the most common policies adopted were not specifically related to earthquakes. Policies that specifically address earthquakes were more frequently found in California. Their findings suggest that policy advocates are needed in other states for adoption of earthquake-specific policies. May and Feeley (2000) conducted a local seismic policy comparison for eleven western states and also found California to be unique. The study utilizes local-level policy development and

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enforcement as a comparative measurement to classify the states as "aggressive" (California), "attentive" (Alaska, Oregon, Nevada, Utah, and Washington) and "minimalist" (Arizona, Idaho, Montana, New Mexico, and Wyoming). May et al. (1999) conducted a nation-wide survey of building officials on the topic of building code adoption and enforcement. They normalized the survey results with regional peak ground acceleration. Their results indicate that building officials in many of the states with the highest risk have greater awareness and appropriately prioritized application of building codes than those in states with intermediate or low risk. May and Birkland (1994) performed cluster analysis on data gathered from local jurisdictions in California and Washington via questionnaires and interviews. They identified local-level leaders and laggers in risk reduction policies. These differences depended on local political demands and resources. The study concludes that better targeting of federal and state earthquake policies and stronger state mandates are needed to address gaps in local risk-reduction efforts.

As illustrated above, previous research efforts have either examined policy variability between states based on local policy adoption and enforcement or narrowly defined the types of state-level policies investigated. The studies provide a relative sense of policy adequacy but do not fully account for all current state policies across the United States that foster earthquake mitigation. The following section presents the methodology and approach that was utilized for this study to compile state seismic mitigation policies, while analyzing the adequacy of the policy coverage with respect to relative seismic risk.

(Appendix A includes the entire bibliography developed for this project that includes many less relevant references not described above.)

METHODOLOGY

This section describes the compilation, synthesis, and analysis of existing state seismic mitigation policies. The methodology facilitates a cross-state comparison for quantitatively evaluating each state's set of seismic mitigation policies relative to seismic risk. The methodology does not consider the efficacy of each policy, but rather provides a generalized tool for identifying states that may not have adequate policy coverage for their level of seismic risk.

Policy Compilation

The Stafford Act as amended by the Disaster Mitigation Act, requires states to develop state-wide hazard mitigation plans to be eligible for certain federal funding before or after a declared disaster (FEMA, 2003). The mitigation plans identify and prioritize potential state mitigation actions; however, there are no prescribed policies that states must institute. It is generally up to the individual states to determine what mitigation policies to implement for any specific hazard. One of the required components of each hazard mitigation plan is the inclusion and discussion of the state's capabilities to address each identified hazard through mitigation efforts, including the presentation of applicable state policies.

By utilizing each state's most current hazard mitigation plan, we compiled a set of seismic mitigation policies that each state considered the most current and applicable. With the exception of three states which did not make their state's hazard mitigation plans available by the completion of this study (Delaware, Kentucky, and Tennessee), we were able to compile and review each state's hazard mitigation plan as the key source for state mitigation policies. This approach provides a convenient and

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relatively quick, but still labor intensive, means for compiling all mitigation policies within the United States. The quality of the reporting of policies within each state's mitigation plan likely varies and should be investigated in the future. However, the quality of the dataset compiled from the state hazard mitigation plans is appropriate for the intended use of this methodology – identifying states that might benefit from additional seismic mitigation policies given their seismic risk.

Each plan was reviewed to assess the document structure and to identify key sections that focus on seismic mitigation and related policies. A key section of each plan that was reviewed was the Capability Assessment section, which highlights the state's pre- and post-disaster hazard mitigation policies and evaluates their capacity to carry the policies out (FEMA, 2003). Additionally, each plan was searched with text recognition and retrieval software (dtSearch) to identify key words and phrases related to seismic mitigation polices. For example, by searching the Washington State Hazard Mitigation Plan for the term "act" over 130 results were identified. Although a number of these results did not apply to seismic mitigation or were duplicative, a quick review identified a number of policies applicable to hazard mitigation including: the Growth Management Act, the State Building Code Act, the Shoreline Management Act, and the State Environmental Protection Act. Key words and phrases searched in all 47 hazard mitigation plans included "executive order," "building code," "statute," "bill," "legislation," "seismic policy," "seismic safety," "administrative code," among others.

Policy Synthesis

A catalog of potential policies for analysis was created using the document review and text search/retrieval method described above. The catalog includes a short title or reference for each policy, as well as a brief description of the policy (typically taken from the respective hazard mitigation plan or from the policy itself). The catalog was reviewed to ensure that each policy was in fact adopted by the respective state and also contributed to seismic mitigation (though the policy did not have to have been created for the sole purpose of seismic mitigation). For this study, we used the broad definition of hazard mitigation provided in the Disaster Mitigation Act – "any sustained action taken to reduce or eliminate the long-term risk to human life and property." The catalog was culled to remove any policy that does not refer to either a piece of legislation or an executive order. There are numerous references to programs, agency rules/regulations, or emergency appropriations within the state hazard mitigation plans that were presented as policies. Many programs, for example, were not initiated or directly associated with the respective state government. Other programs, for example some advisory committees, were not mandated by the state's executive or legislature and, thus, may or may not exist in the future.

The final catalog is presented in Appendix B. The policies are listed for each state and the states are listed in alphabetical order. Each policy in the catalog has a unique identifier assigned to it based on the state's two-letter abbreviation and the order in which it appears after the heading for the particular state (e.g., the first policy listed on the Alaska heading is giving the identified "AK-1.")

A spreadsheet database of the policies listed in the catalog was created to facilitate searching of the catalog and quantitative analysis of the policy dataset. The database contains 275 records (rows) corresponding to the 275 policies listed in the catalog. Each record contains six items (columns): the unique identifier that can be used to find the policy in the catalog, the policy title/reference, the state the policy is associated with, a set of keywords identifying the primary subject of the policy, whether the policy is legislation or an executive order, and whether or not the policy is earthquake specific.

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Policy Analysis

Creation of the policy catalog and database facilitates analysis to understand which states have what policies. Qualitative analysis of the database and catalog is possible simply by searching for a state of interest and, for example, comparing the listed policies with another state. For the purposes of this study, two simple quantitative analyses were conducted to provide insight into whether Washington State and other states might have policy gaps with respect to seismic mitigation.

First, descriptive statistics were calculated to compare Washington State to all other states (in aggregate). The descriptive statistics include absolute and relative counts of total policies, legislation, and executive orders, as well as total policies directly associated with earthquakes. The descriptive statistics also include the average number of policies that states have adopted, as well as average seismic risk.

Second, a set of rankings was created based on the policy counts for each state. While the policy counts can be used to rank the states relative to their policy coverage, simply using counts does not consider whether a particular state needs to adopt seismic mitigation policies. That is, a rank based on policy counts alone does not consider the relative earthquake risk of each state. In order to account for this risk, we utilized the annualized earthquake loss ratios (AELR) computed for each state by FEMA using the loss estimation software HAZUS-MH (FEMA, 2008). AELR is the estimated long-term value of earthquake losses to the general building stock in any single year expressed as a fraction of the building inventory replacement value. AELR was combined with the policy counts in two different ways to produce two similar indicators of states' policy coverage with respect to relative earthquake risk.

The first indicator – *Policy Risk Ratio* (PRR) – is the ratio of normalized policy count to normalized AELR. The policy count for each state was normalized by the number of policies from the state with the most policies. The AELR for each state was similarly normalized by the AERL amount from the state with the highest AELR. The equation of the first policy indicator is given below.

$$Policy\ Risk\ Ratio = \frac{\frac{Policy\,Count\ of\ State}{Maximum\,Policy\ Count\ of\ all\ States}}{\frac{AELR\,of\ State}{Maximum\,AELR\,of\ all\ States}}$$

The second indicator – *Proportional Risk Count* (PRC) – is an estimate of how many policies the state with the most policies would have if that state had the same AELR as each respective state. This was computed by subtracting the product of the normalized AELR for the respective state and the policy count from the state with the most policies from the policy count of the respective state.

$$Proportional\ Risk\ Count\ =$$

$$Policy\ Count\ of\ State - \frac{(Policy\ Count\ of\ State\ Maximum\,AELR)(AELR\,of\ State)}{Maximum\,AELR\,of\ all\ States}$$

The two policy indicators presented above convey similar information, but in different ways. They are not the only quantitative indicators that could be computed using the variables of policy count and AERL. Use of additional variables of course would expand the potential means of computing indicators further. These indicators are based on several simplifying assumptions in order to provide a relatively convenient means of quantitatively comparing states' policy coverage with respect to their relative risk. The indicators assume that additional risk requires additional policy coverage. There is an assumption

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that each policy is an equivalent unit; in other words, it is assumed that a piece of legislation adopted in one state does not incorporate the same policies that might have been adopted in another state through multiple pieces of legislation. Lastly, it assumes that each policy topic is of equal importance, for example, a building code mandate is equivalent to a planning mandate for schools. These assumptions are reasonable or the purpose of providing a quantitative means of comparing states' policy coverage to each other with respect to seismic risk; however the information gained from this quantitative comparison should be augmented by a qualitative comparison of specific policies between particular states.

FINDINGS

This section presents the findings from applying the methodology to create and analyze the seismic policy database described in the previous section. Presented first are the descriptive statistics of the entire policy database in contrast to descriptive statistics for Washington State (Table 1). Presented second are the cross-state comparisons of the 47 states in the policy database with respect to policy count and AELR. The section concludes by highlighting the policy gaps identified for Washington State using the policy database and the results of the cross-state comparison.

Descriptive Statistics

Table 1 lists the descriptive statistics for the policy database in aggregate, while highlighting similar statistics for just Washington State. As mentioned before, the total number of policies in the database is 275. Of these, 239 or about 87% are legislation, with the balance being executive orders. Twenty-two percent of the policies in the database (61 policies) are specific to earthquakes, while the balance serve to mitigate against earthquakes but were not solely adopted for earthquake mitigation. The state with the greatest number of seismic mitigation policies is California, with 32 policies (31 of which are legislation). The greatest number of executive orders is 3, associated with Alabama, Missouri, and Wyoming. On average, states have about 6 policies that deal with earthquake mitigation and about 5 pieces of legislation. The average AELR is about $192 per million dollars.

With a policy count of seven, the State of Washington has a roughly average number of earthquake mitigation polices. All of the policies for Washington State in the database are legislation. Of these, two or about 29% of the policies are earthquake specific, which is slightly higher than the rest of the country in aggregate. While the State of Washington has a roughly average number of earthquake mitigation policies, it has a much higher than average AELR at $884 per million dollars. (California has the maximum state AELR in the United States at a $1452 per million dollars.) This suggests that the policy coverage for the State of Washington should not be average in comparison to the other 46 states in the database.

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Table 1. Descriptive statistics of seismic mitigation policy database comparing Washington State with all other states in aggregate.

All States		Washington State	
Total policies	275	Total policies	7
Total legislation	239	Total legislation	7
Percent legislation	86.9%	Percent legislation	100%
Total executive orders	29	Total executive orders	0
Percent executive orders	10.6%	Percent executive orders	0%
Total earthquake specific policies	61	Total earthquake specific policies	2
Percent earthquake specific policies	22.2%	Percent earthquake specific policies	28.6%
Average AELR	192.5	AELR	884
Average # policies	5.8		
Maximum # of policies	32		
Average # legislation	5.1		
Maximum # of legislation	30		

Cross-State Comparison

Table 2 provides further quantitative insight into the State of Washington's policy coverage relative to both its own AELR (seismic risk) and other states' policy coverage. Table 2 presents only legislation counts, not overall policy counts, because the number of executive orders (the other policy counted in this study) is relatively insignificant. Washington State has a higher AELR than every state other than Alaska and California. However, Washington State has the same or fewer pieces of seismic mitigation legislation than 12 other states. Oregon and Utah have the most similar AELR to Washington State. Oregon has more than twice as many pieces of adopted legislation that enable seismic mitigation, while Utah has the same number as Washington State. Missouri and Nevada has more seismic mitigation legislation than Washington State even though their AELR are about 70% and 25% of Washington State's, respectively. Figures 1 and 2 present the information in the first two columns of Table 2 – AERL and legislation count – in map form, respectively.

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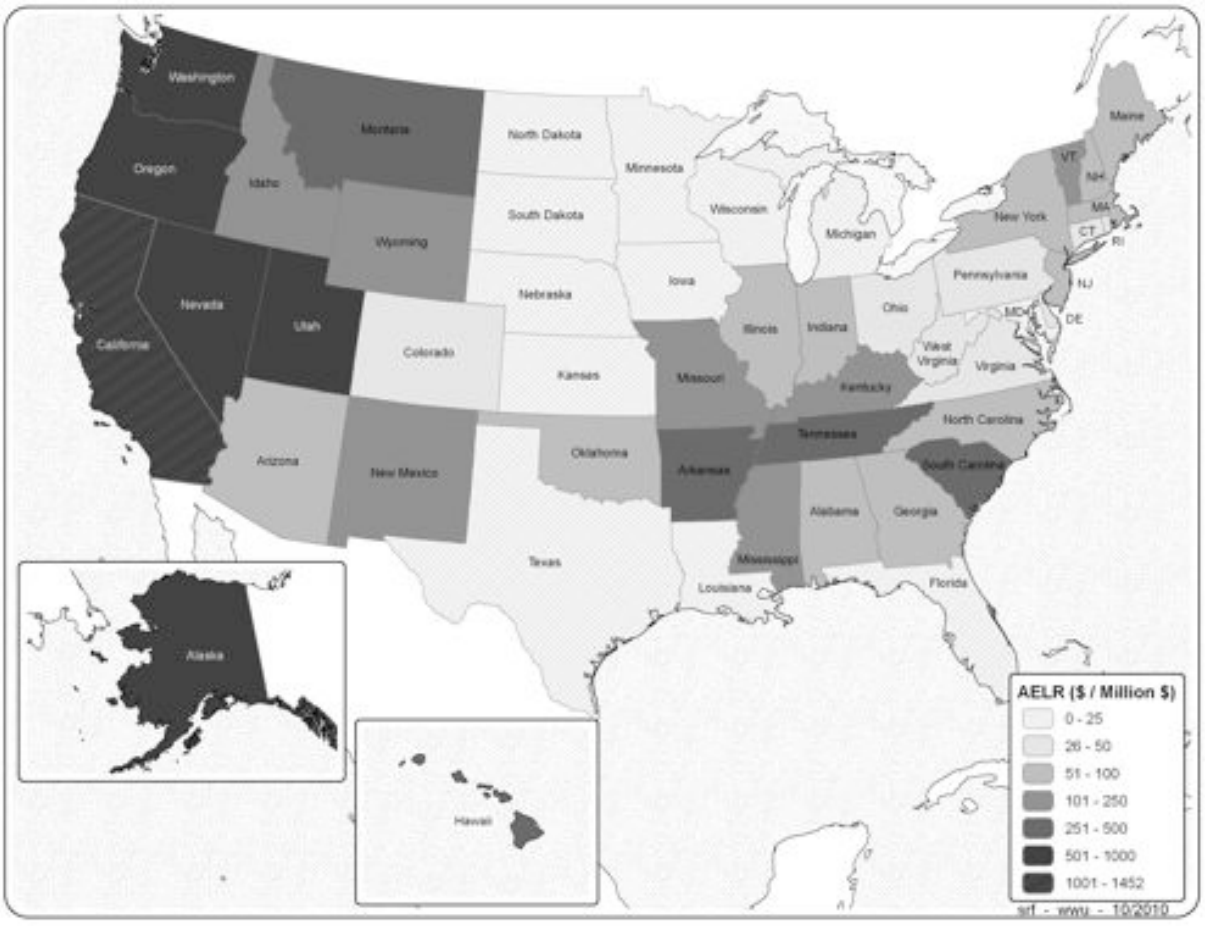

Figure 1. Map showing annualized earthquake loss ratio – seismic risk – for each state computed by FEMA (2008).

The policy indicators – Policy Risk Ratio (PRR) and Proportional Risk Count (PRC) – in the third and fourth columns of Table 2 combine legislation count and AELR, as described in the methodology section, in order to compare states' policy coverage with respect to their seismic risk. PRR is the normalized legislation count divided by the normalized AERL. It compares each state's respective legislation count to AERL ratio to the maximum legislation count to AELR ratio. California has the highest legislation count and AELR, so their value for this indicator is 1. Any state with an indicator value greater than 1 arguably has more policy coverage than risk, assuming California's ratio is the standard. Conversely, any state with a value less than 1.0 arguably has less policy coverage than necessitated by their risk, again assuming California as the standard. Washington State's value for PRR is 0.38, suggesting that it has inadequate policy coverage given its risk (AELR) and using California as the standard. Oregon compares most closely with the standard of California, with a PRR value of 0.97. Montana has the next closest value to California. This provides an interesting comparison to Washington State because Montana has the same legislation count (7) but an AELR that is about 34% of Washington State's.

The policy indicator PRC expresses how many policies the state with the greatest risk, in this case California, would have if they had the same AELR as the state in question. In other words, if California had the same AELR as Arizona, would it have more or less seismic mitigation policies than Arizona

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currently has? If the value of PRC for a given state is negative, it means that the state in question has fewer policies than California would if it had the respective state's AELR by a value equal to the indicator value. If PRC is positive, it means the state in question has more policies than California would for the same AERL. Of course, California has a PRC value of zero; for its actual AERL it would have the actual policy count it has. The states with the legislation count most in proportion to their AERL, using California as the standard, are Georgia and Louisiana. However these states have minimal risk. Oregon, which has a similar AELR as Washington State, has a PRC of -0.56, meaning that California would have 0.56 more pieces of legislation than Oregon currently does if it had Oregon's AERL. In other words, Oregon's policy coverage is fairly proportional to its seismic risk, assuming California as the standard. Washington State's PRC, in contrast, is -11.26, meaning that California would have 11.26 more pieces of legislation if it had Washington State's AERL. The only state with a quantitative policy coverage gap greater than Washington State's is Alaska, with a PRC value of -16.65. Montana, which again has a PRR close to 1.0 and the same legislation count as Washington State, has a PRC of 0.72. Also of note is the high PRC for Missouri (8.56), a state with 25% of Washington State's AERL.

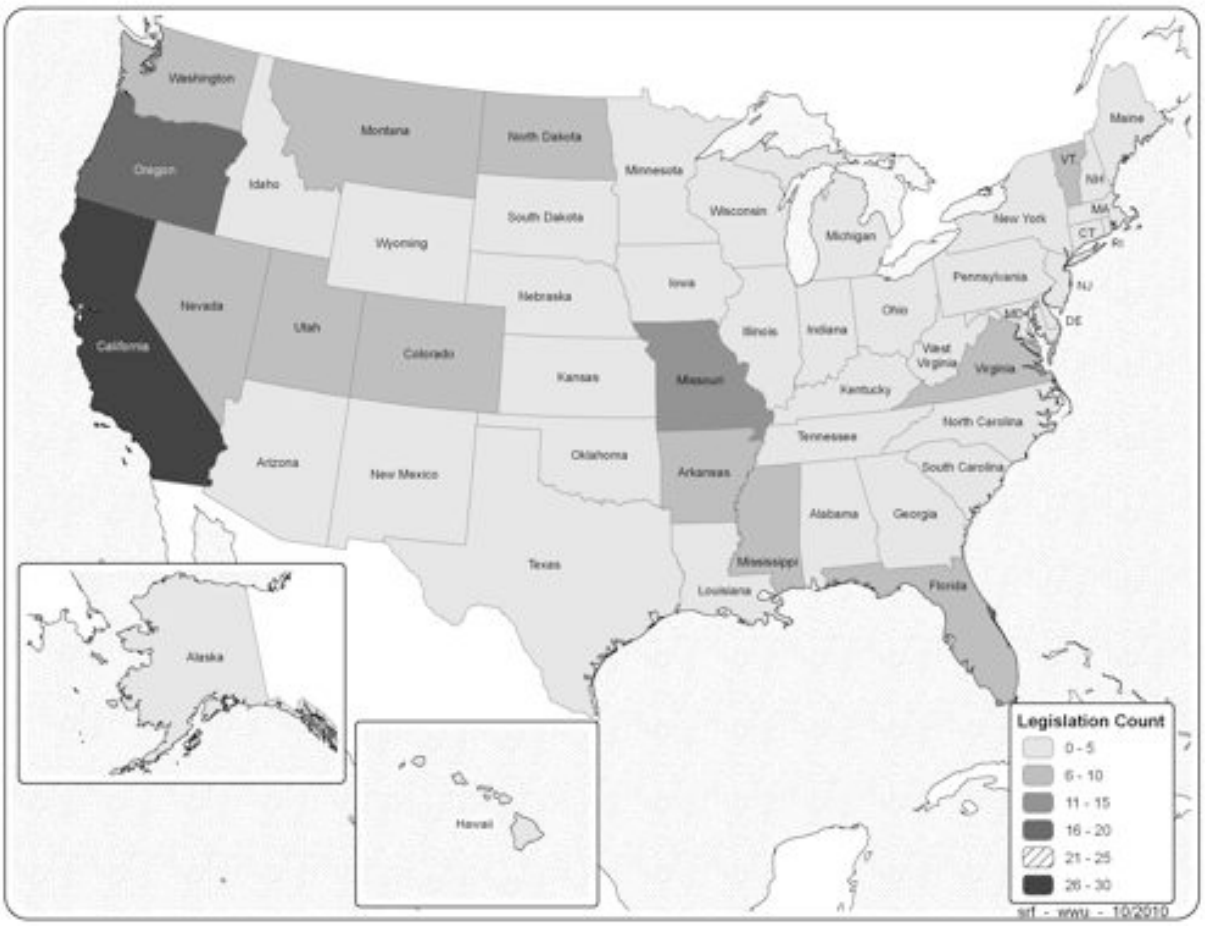

Figure 2. Map showing number of seismic mitigation legislation identified for each state by this study.

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Table 2. State rankings with respect to annualized earthquake loss ratio and legislative count. (Procedure for calculating the indicators in the latter two columns are described in the methodology section.)

Annualized Earthquake Loss Ratio ($/ million $)		Legislation Count		Policy Risk Ratio		Proportional Risk Count	
California	**1452.00**	**California**	**30**	North Dakota	193.60	Missouri	8.50
Alaska	951.00	Oregon	17	Minnesota	96.80	North Dakota	7.96
Washington	***884.00***	Missouri	13	Florida	64.53	Florida	7.88
Oregon	850.00	Nevada	10	Wisconsin	60.50	Virginia	6.34
Utah	817.00	Florida	8	Michigan	40.33	Colorado	6.17
Nevada	617.00	North Dakota	8	Iowa	32.27	Wisconsin	4.92
Hawaii	488.00	Virginia	7	Nebraska	13.20	Michigan	4.88
South Carolina	363.00	Arkansas	7	South Dakota	12.10	Mississippi	4.58
Montana	304.00	Mississippi	7	Maryland	11.52	Maryland	4.57
Arkansas	273.00	Colorado	7	Virginia	10.59	Iowa	3.88
Missouri	218.00	Montana	7	Kansas	10.37	Vermont	3.87
New Mexico	205.00	Utah	7	Colorado	8.47	Nebraska	2.77
Wyoming	187.00	***Washington***	***7***	Ohio	5.58	South Dakota	2.75
Mississippi	117.00	Vermont	6	Rhode Island	4.03	North Carolina	2.72
Idaho	106.00	Maryland	5	Texas	4.03	Kansas	2.71
Vermont	103.00	Michigan	5	Pennsylvania	3.92	Ohio	2.46
Alabama	93.00	Wisconsin	5	North Carolina	3.12	Rhode Island	2.26
New Hampshire	92.00	North Carolina	4	Mississippi	2.90	Pennsylvania	2.24
Arizona	79.00	Hawaii	4	Missouri	2.89	New Hampshire	2.10
Georgia	77.00	South Carolina	4	Massachusetts	2.85	Minnesota	1.98
Maine	74.00	Iowa	4	West Virginia	2.85	Massachusetts	1.95
Indiana	73.00	New Hampshire	4	Vermont	2.82	Oklahoma	1.84
Illinois	71.00	Alabama	3	Oklahoma	2.59	New Jersey	1.70
New York	67.00	Wyoming	3	New Jersey	2.30	New York	1.62
New Jersey	63.00	New Jersey	3	New York	2.17	Arizona	1.37
North Carolina	62.00	Arizona	3	Connecticut	2.15	Arkansas	1.36
Oklahoma	56.00	Idaho	3	New Hampshire	2.10	West Virginia	1.30
Massachusetts	51.00	Massachusetts	3	Arizona	1.84	Alabama	1.08
Connecticut	45.00	Pennsylvania	3	Alabama	1.56	Connecticut	1.07
Colorado	40.00	Rhode Island	3	Idaho	1.37	Idaho	0.81
Pennsylvania	37.00	South Dakota	3	Illinois	1.36	Texas	0.75
Rhode Island	36.00	Alaska	3	Indiana	1.33	Montana	0.72
West Virginia	34.00	Kansas	3	Maine	1.31	Illinois	0.53
Virginia	32.00	Nebraska	3	Georgia	1.26	Indiana	0.49
Ohio	26.00	New York	3	Arkansas	1.24	Maine	0.47
Maryland	21.00	Ohio	3	Montana	1.11	Georgia	0.41
Kansas	14.00	Oklahoma	3	**California**	**1.00**	**California**	**0.00**
South Dakota	12.00	Connecticut	2	Oregon	0.97	Louisiana	-0.25
Texas	12.00	Georgia	2	Nevada	0.78	Oregon	-0.56
Louisiana	12.00	Illinois	2	Wyoming	0.78	Wyoming	-0.86
Nebraska	11.00	Maine	2	South Carolina	0.53	New Mexico	-2.24
Florida	6.00	Minnesota	2	New Mexico	0.47	Nevada	-2.75
Michigan	6.00	New Mexico	2	Utah	0.41	South Carolina	-3.50
Iowa	6.00	West Virginia	2	Hawaii	0.40	Hawaii	-6.08
Wisconsin	4.00	Indiana	2	***Washington***	***0.38***	Utah	-9.88
North Dakota	2.00	Texas	1	Alaska	0.15	***Washington***	***-11.26***
Minnesota	1.00	Louisiana	0	Louisiana	0.00	Alaska	-16.65

Note: Delaware, Kentucky and Tennessee are not included because no hazard mitigation plan could be obtained.

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Washington State Policy Gaps

To this point, quantitative results of analyzing the database of seismic mitigation policies have been presented. The descriptive statistics and policy indicators for cross-state comparison are useful to get an overview of what states may have a policy gap given their respective seismic risk, using California, which has the highest policy count and seismic risk, as a standard. The quantitative results do not give insight into what the specific gap is and thus what policies might be considered for adoption. The results in general also only reflect the policies that each state listed, under federal mandate, in their respective mitigation plan. If a particular plan does not include reference to seismic mitigation policies that have been adopted by the state, either because of oversight or lack of awareness, the state will compare poorly against states that have included more of their seismic mitigation policies in their plan. Below, the specific policies in the gap analysis database are compared to the policies of California, Oregon, Missouri, Nevada and Utah – states identified above as having better or similar policy coverage than Washington State, given their seismic risk. The policies in the database for Washington State are also compared to searches of Washington State's legislative database and references found via an Internet search.

Table 3 lists the seven policies for Washington State contained in the gap analysis database. All are legislation and two are specific to earthquakes. The two policies specific to earthquakes are on the subject of building codes and bridge retrofits. Other policies deal with general land use (growth management and critical areas protection), building code, establishment of an emergency management advisory council, and geologic hazard assessment.

Table 3. Washington State policies in the gap analysis database.

ID	Policy Description	Policy Subject	Policy Type	Earthquake Specific?
WA-1	Growth Management Act – RCW 36.70A	Land use	Legislation	N
WA-2	Earthquake Construction Standards (RCW 70.86)	Buildings	Legislation	Y
WA-3	State Building Code Act (RCW 19.27)	Buildings	Legislation	N
WA-4	RCW 38.52.040 Emergency Management Council	Advisory	Legislation	N
WA-5	Transportation Partnership Act of 2005 (Bridge Seismic Retrofit Program)	Infrastructure	Legislation	Y
WA-6	RCW 43.92.025 Geologic Survey, landslide and tsunami hazards	Science; Mapping	Legislation	N
WA-7	WAC 365-190-120 Critical Areas-Geologically Hazardous Areas	Land use	Legislation	N

Table 4 lists the policies in the database for California. A significant majority of the policies is specific to earthquakes, all but one of which are legislation. Similar to Washington State, California has policies in the database related to land use, mapping, buildings, and infrastructure. California in contrast has earthquake specific legislation on the subject of schools, hospitals, insurance, seismic monitoring, funding, and advisory (the advisory legislation for Washington State is not specific to seismic safety). The policies for Oregon listed in the database (Table 5) are also for the most part specific to earthquakes. Unlike Washington State, Oregon has earthquake-specific policies on the subject of schools, hospitals, funding, and seismic advisory. A majority of the policies in the database for Missouri is earthquake-specific (Table 6). Like California and Oregon, Missouri also have earthquake-specific policies related to schools, insurance, and seismic advisory, whereas Washington State does not. The policies for Nevada (Table 7) are nominally similar to Washington State: a minority of the policies is earthquake specific and covers a similar range of subjects. Utah has only one earthquake-specific policy (Table 8), which is related to seismic advisory – something Washington State does not have.

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Table 4. California policies in the gap analysis database.

ID	Policy Name	Policy Subject	Policy Type	Earthquake Specific?
CA-1	Field Act (Education Code-§17281, et seq.)	Schools	Legislation	Y
CA-2	Riley Act	Buildings	Legislation	Y
CA-3	Garrison Act	Schools	Legislation	Y
CA-4	Strong Motion Instrument Act (Public Resources Code§§2700-2709.1)	Monitoring	Legislation	Y
CA-5	Seismic Safety General Plan Element (Government Code § 65302)	Local mandate; Planning	Legislation	Y
CA-6	Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code § 2621-2630	Mapping	Legislation	Y
CA-7	Alfred E. Alquist Hospital Facilities Seismic Safety Act (Health and Safety Code§129675)-	Hospitals	Legislation	Y
CA-8	Seismic Safety Commission Act (Business and Professions Code §1014)	Advisory	Legislation	Y
CA-9	Earthquake Hazard Reduction Program (Senate Bill 1279)	Advisory	Legislation	Y
CA-10	Alquist Hospital Facilities Seismic Safety Act of 1983 (Health and Safety Code §§130000-130070)	Hospitals	Legislation	Y
CA-11	California Earthquake Hazards Reduction Act of 1986 (Government Code §8870, et seq.)	Advisory	Legislation	Y
CA-12	Un-reinforced Masonry Building Law (Government Code §§ 8875-8875.10)	Buildings	Legislation	Y
CA-13	Essential Services Building Seismic Safety Act (Health and Safety Code §16000	Buildings	Legislation	Y
CA-14	Katz Act (Education Code §§35295-35297)	Schools	Legislation	Y
CA-15	Bridge Seismic Retrofit Program (Senate Bill 2104)	Infrastructure	Legislation	Y
CA-16	Earthquake Safety and Public Buildings Rehabilitation Bond Act of 1990 (Prop 122 & Government Code §§ 8878.50-8878.52)	Funding	Legislation	Y
CA-17	Seismic Hazards Mapping Act (Public Resources Code §§ 2690-2699.6)	Mapping	Legislation	Y
CA-18	Health & Safety Code § 1226.5	Hospitals	Legislation	Y
CA-19	Health and Safety Code §§ 19210-19214	Buildings	Legislation	Y
CA-20	Executive Order D-86-90	Infrastructure	Order	Y
CA-21	California Earthquake Authority (Insurance Code §§ 10089.5-10089.54)	Insurance	Legislation	Y
CA-22	Education Code§17317	Schools	Legislation	Y
CA-23	Government Code §8587.7	Schools	Legislation	Y
CA-24	Health and Safety Code §§19180-83 & §§19200-05	Buildings	Legislation	Y
CA-25	Streets & Highways Code §188.4	Buildings	Legislation	Y
CA-26	Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 (Proposition 1B, Government Code §8879.23(i))-	Funding	Legislation	Y
CA-27	CA Emergency Services Act (Government Code §8550)	Local mandate	Legislation	N
CA-28	Disaster Recovery Reconstruction Act (Government Code §8877.1)	Recovery	Legislation	N
CA-29	Economic Disaster Act of 1984 (Government Code §8695)	Recovery	Legislation	N
CA-30	Natural Disaster Assistance Act (Government Code §8680)	Recovery	Legislation	N
CA-31	Natural Hazards Disclosure Act (Civil Code §1102)	Awareness	Legislation	N
CA-32	Planning and Zoning Law (Government Code §65000)	Land Use	Legislation	N

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Table 5. Oregon policies in the gap analysis database.

ID	Policy Name	Policy Subject	Policy Type	Earthquake Specific?
OR-1	Oregon Revised Statutes 401.025-.335 (Emergency Management and Services)	Emergency Management	Legislation	N
OR-2	Oregon Revised Statutes 516	Agency Structure	Legislation	Y
OR-3	Oregon Revised Statutes 336.071	Preparedness; Awareness	Legislation	Y
OR-4	Oregon Revised Statutes 455.448	Buildings; Recovery	Legislation	Y
OR-5	Oregon Revised Statutes Chapter 455 (Building Code)	Buildings	Legislation	Y
OR-6	Oregon Revised Statutes 401.337 Oregon Seismic Safety Policy Advisory Commission	Advisory	Legislation	Y
OR-7	Oregon Senate Bill 96 (1991) Seismic Hazard Investigation	Mapping; Awareness	Legislation	Y
OR-8	Oregon Senate Bill 1057 (1995)	Advisory	Legislation	Y
OR-9	Oregon House Bill 3144 (1999)	Buildings; Infrastructure	Legislation	N
OR-10	Oregon Senate Bill 13 (2001) Seismic Event Preparation	Preparedness; Awareness	Legislation	Y
OR-11	Oregon Senate Bill 14 (2001) Seismic Surveys for School Buildings	Schools	Legislation	Y
OR-12	Oregon Senate Bill 15 (2001)Seismic Surveys for Hospital Buildings	Hospitals	Legislation	Y
OR-13	Oregon Senate Bill 2 (2005) Statewide seismic needs assessment for schools and emergency facilities	Schools	Legislation	Y
OR-14	Oregon Senate Bill 3 (2005) Seismic earthquake rehabilitation grant program	Buildings; Funding	Legislation	Y
OR-15	Oregon Senate Bill 4&5 State bond authorization	Funding	Legislation	Y
OR-16	Oregon Revises Statutes 197-Oregon Land Use Planning Act	Land use	Legislation	N
OR-17	Oregon Administrative Rule 345-022-0020-Energy Facility Siting Council	Infrastructure	Legislation	Y
OR-18	Executive Order 08-20	Agency Structure	Order	N

Table 6. Missouri policies in the gap analysis database.

ID	Policy Name	Subject	Policy Type	Earthquake Specific?
MO-1	Revised Missouri Statutes RSMo 44.020	Agency Structure	Legislation	N
MO-2	Revised Missouri Statutes RSMo 44.032	Emergency Powers	Legislation	N
MO-3	Revised Missouri Statutes RSMo 44.080	Local Mandate	Legislation	N
MO-4	Revised Missouri Statutes RSMo 44.227-237 Missouri Seismic Safety Commission	Advisory	Legislation	Y
MO-5	Revised Missouri Statutes RSMo 160.451	Schools	Legislation	Y
MO-6	Revised Missouri Statutes RSMo 160.453	Schools	Legislation	Y
MO-7	Revised Missouri Statutes RSMo 160.455 – School Earthquake Emergency Program	Education; Preparedness	Legislation	Y
MO-8	Revised Missouri Statutes RSMo 256.173	Science; Mapping; Awareness	Legislation	Y
MO-9	Revised Missouri Statutes RSMo 256.175	Science; Mapping; Awareness	Legislation	Y
MO-10	Revised Missouri Statutes RSMo 319.200-207	Buildings	Legislation	Y
MO-11	Revised Missouri Statutes RSMo 379.975	Insurance	Legislation	Y
MO-12	Revised Missouri Statutes RSMo 379.978	Insurance	Legislation	Y
MO-13	Executive Order 94-25, 1994	Recovery	Order	N
MO-14	Executive Order 03-23, 2003	Agency Structure	Order	N
MO-15	Executive Order 05-20, 2005	Advisory	Order	N
MO-16	Revised Missouri Statutes RSMO 44.023	Liability	Legislation	N

Table 7. Nevada policies in the gap analysis database.

ID	Policy Name	Subject	Policy Type	Earthquake Specific?
NV-1	239C.010 Chapter of the Nevada Revised Statutes	Agency Structure; Planning	Legislation	N
NV-2	268.012 Chapter 268 of the Nevada Revised Statutes	Buildings	Legislation	N
NV-3	278.580 Chapter of the Nevada Revised Statutes	Buildings	Legislation	Y
NV-4	278.160.1 Chapter of the Nevada Revised Statutes	Land use; Planning	Legislation	Y
NV-5	341.143 Chapter of the Nevada Revised Statutes	Building Code	Legislation	Y
NV-6	353.2735 Chapter of the Nevada Revised Statutes	Recovery	Legislation	N
NV-7	Section 414.040 of the Nevada Revised Statutes	Agency Structure	Legislation	N
NV-8	414.060(3)b of the Nevada Revised Statutes	Preparedness; Planning	Legislation	N
NV-9	414.135 Chapter of the Nevada Revised Statutes	Recovery	Legislation	N
NV-10	461.170 Chapter of the Nevada Revised Statutes	Buildings	Legislation	N

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Table 8. Utah policies in the gap analysis database.

ID	Policy Name	Subject	Policy Type	Earthquake Specific?
UT-1	Civil Defense Act of 1950	Agency Structure; Emergency management	Legislation	N
UT-2	Disaster Response Recovery Act, Utah Code 63-5A	Recovery	Legislation	N
UT-3	Utah Code Annotated Chapter 73 Geological and Mineral Survey-Section 68-73-6	Agency Structure; Science; Mapping	Legislation	N
UT-4	Utah State Office of Education Rule R277-455 Standards and Procedures for building plan review R277-455-4	Schools	Legislation	N
UT-5	Emergency Management Act of 1981, Utah Code 53-2, 63-5.	Planning; Preparedness; Emergency management	Legislation	N
UT-6	Utah Seismic Safety Commission Act (House Bill 358 and as amended by HB200)	Advisory	Legislation	Y
UT-7	Utah Administrative Code Rule R156-56 Utah Uniform Building Standard Act Rule	Buildings	Legislation	N

The qualitative comparison between Washington State and states with similar AELR and better seismic policy indicators shows clear gaps in seismic mitigation policies for Washington State given its relative seismic risk. Whether or not the policy database is complete, based on the data gathered from the 47 state mitigation plans, it is important to evaluate whether or not these identified gaps are indeed gaps. Most important is the need to verify whether Washington State has in fact adopted a similar policy as other states but left out reference to it in their state mitigation plan. We verified the completeness of the database in two ways.

As an initial completeness check, about 20 hours was spent searching the Internet (using Google) for policies related to seismic mitigation for the states of Alaska, California, Oregon and Washington. (The results of this search are included in the gap analysis spreadsheet database.) For California, 19 unique references were found, with ten, three and two references, respectively for Oregon, Alaska, and Washington. One policy – related to a hazard safety commission – found for Alaska using an Internet search was not referenced in their hazard mitigation plan. In all cases, fewer policies were found doing an Internet search than from analyzing the respective states mitigation plan. This suggests that the mitigation plans contain more information than what is indexed on the Internet by popular search engines.

As a second completeness check, we searched the Internet-based database of the Washington Administrative Code (WAC) and the Revised Code of Washington (RCW). We compiled every WAC and RCW reference that contained the words “seismic,” “earthquake,” or “mitigation.” (This is included in the spreadsheet database compiled for this study.) The search of the WAC and RCW returned 119 different chapters/sections with one of the three keywords. None of these references relate to school seismic safety, seismic advisory, hospital safety, insurance, seismic monitoring, or earthquake-specific funding mechanisms – policies that other states with similar or great seismic risk have.

CONCLUSION

The purpose of this study is to understand how Washington State compares with other states with respect to state-level seismic mitigation policies. This facilitates identification of potential Washington State policy gaps that might be filled with policies similar to those of other states. This study was accomplished by compiling, synthesizing, and analyzing state-level policies listed in the mitigation plan

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of 47 states (three could not be obtained by the completion of the study). A catalog describing each of the compiled policies – legislation or executive orders – was assembled. A spreadsheet database was created in order to synthesize, search, and analyze the policies. Quantitative cross-state analysis was conducted using two different computed indicators based on seismic risk and policy count. The cross-state analysis facilitates a broad assessment of Washington State's policy coverage given its seismic risk, as well as identification of policies from states with more seismic mitigation policies.

According to FEMA, Washington State has the third highest annualized earthquake loss ratio (AERL) – seismic risk – in the United States, behind California and Alaska. However, based on the analysis of policies listed in state mitigation plans, Washington State has only an average number of policies that facilitate seismic mitigation. Five states have more seismic mitigation policies, while six have the same number as Washington State. In comparison to other states, two similar indicators show that Washington State appears to lack enough seismic mitigation legislation given its high seismic risk. The first indicator, referred in this study as the Policy Risk Ratio (PRR), quantitatively compares the ratio of Washington State's legislation count to AERL with the same ratio for California (that happens to have the maximum legislation count and AERL). Assuming California as the standard, an adequate policy coverage for Washington State's seismic risk would be a PRR = 1, when in fact the PRR was computed to be 0.36. The second indicator – Proportional Risk Count (PRC) – uses the same variables but expresses the result in terms of how many policies California, as the standard, would have if it had the same AERL as Washington State (or any other state). The PRC for Washington State was computed to be 11.26, meaning that California would have about 11 more pieces of legislation than Washington currently does if it had Washington State's seismic risk. According to both indicators, Washington State has the poorest policy coverage of any state with significant seismic risk, except for Alaska.

Washington State could fill its policy gaps identified by this study by passing similar legislation or executive orders as moderate-to-high seismic risk states with better policy coverage. In aggregate, California, Missouri, Nevada, Oregon and Utah have adopted policies related to school safety, hospital safety, funding for seismic mitigation, seismic advisory commissions, seismic monitoring, and earthquake insurance. Washington State lacks formal policies related to these topics, even though it has higher seismic risk than all but one of those states. This study did not make any assessment regarding the relative efficacy of policies adopted by each state and so does not make any conclusion regarding whether Washington State should model a new policy based on a particular policy of another state.

This study is subject to some potential limitations, which could affect the results of this study. Most significantly, the quantitative cross-state comparison only considered policies listed in each state's federally required hazard mitigation plan. While it is mandated that each state list all relevant policies that facilitate mitigation in their plan, it is possible that policies related to seismic mitigation are left out because of oversight or lack of awareness on the part of planners. For this study, two simple approaches were taken for checking the completeness of the database, particularly focusing on the completeness of Washington State, as well as Alaska, Oregon and California. Based on this check, the gaps identified for Washington State suggested by the analysis do appear to be actual policy gaps. Use of the mitigation plans, while imperfect, appears to reveal more relevant policies than general internet searches, while being more convenient than direct searching of legislative databases. This is encouraging because the methodology used for this study could be repeated regularly, such as every time that Washington State is required to update their state mitigation plan (every three years) to evaluate the state's ongoing policy coverage relative to other states. This methodology could also be applied to other types of hazards in order to identify related policy gaps.

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APPENDIX A:

GAP ANALYSIS BIBLIOGRAPHY

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APPENDIX B:

STATE SEISMIC MITIGATION POLICY CATALOG

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APPENDIX B: STATE SEISMIC MITIGATION POLICY CATALOG

Alabama

(AL-1) Alabama Emergency Management Act of 1955 (as amended) -- As a result of the State's continuing legislative review process, Act 522 was signed into law by Governor Bob Riley on April 20, 2006. The Act amended the Alabama Emergency Management Act of 1955 (Sections 31-9 et seq, Code of Alabama), which first established the Alabama Emergency Management Agency and defined the roles, powers, and duties for emergency management within the State. Sections 31-9-3, 4, 8, and 10, related to State emergencies and AEMA were strengthened to provide for emergency proclamations, expand the authority of State and local responders, establish degrees of emergency classifications, and provide for the powers of political subdivisions for emergency management.

(AL-2) Title 11, Chapter 52, *Planning, Zoning, and Subdivisions* of the Code of Alabama - Section 11-52 et seq is the State planning enabling legislation for municipalities only. First enacted in 1935, the statute provides municipalities' broad powers for comprehensive planning, capital improvements programming and the regulation of land use, development, and conservation of land areas through zoning ordinances and subdivision regulations. It permits municipalities to create planning commissions to oversee planning and land use controls, and Boards of Adjustments to hear appeals. It is the basis for floodplain management regulations within all municipalities and provides additional powers to control the location and types of development activities that might be affected by other natural hazards, including landslides and land subsidence.

(AL-3) Title 41, Article 6, Code of Alabama, establishes a State Building Commission and adopts the Standard Building Code of the Southern Building Code Congress. The Standard Building Code has since been superseded by the International Code Series of the International Code Council. The Building Commission oversees the planning, acquisition, and construction of all State buildings. Section 41-9-166 of Article 6 authorizes municipalities and counties to adopt and enforce building and technical codes.

(AL-4) Executive Order No. 14 June 14, 1971 provides for "Assignment of Emergency Preparedness Functions to State Departments and Agencies," as of June 14, 1971, and was adopted by reference by AEMA.

(AL-5) Executive Order No. 27 March 3, 1966 provides for the "Creation of the State Office of Emergency Planning," as of March 3, 1966, and was adopted by reference by the Alabama Emergency Management Agency. Executive Orders 27 and 14 authorize the Governor to use the services, equipment, supplies and facilities of existing State departments, offices and agencies for emergency management purposes. In the event of an impending or actual attack or manmade, technological or natural disaster, Section 4 of Executive Order 14 authorizes the transfer of direction, personnel or functions of state agencies, boards, and commissions for the purpose of performing or facilitating disaster or emergency services.

(AL-6) Executive Order 19, February 24, 2004 established Alabama's State Hazard Mitigation Team directing all State agencies to participate in development of the State Hazard Mitigation Plan. The SHMT is directed to develop the Plan, and to assist in prioritizing and selecting of hazard and pre-disaster mitigation grant program project applications. The SHMT is intended to function for the duration of Plan development, and remain in place until the three year plan to update the hazard mitigation plan has been approved by FEMA. The SHMT is active in development of local plans statewide, with a focus on information sharing, issues resolution, and commonality of approach and objectives.

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Alaska

(AK-1) Alaska Disaster Act, Alaska Statute 26.23.010: States the purpose of DHS&EM is to reduce vulnerability of people and communities to damage, injury and loss of life and property resulting from a disaster; Prepare for the prompt and efficient rescue, care and treatment of persons victimized or threatened by disaster; Provide a setting conducive to rapid and orderly restoration following a disaster; Clarify and strengthen the roles of state agencies and local communities to prevent, prepare for, respond and recover from disasters; Authorize and provide for cooperation in disaster prevention, preparedness, response and recovery; Authorize and provide for coordination of activities relating to disaster prevention, preparedness, response and recovery; and Assist in the prevention of disasters caused or aggravated by inadequate planning for, and regulation of, public and private facilities and land use.

(AK-2) AS 29.40.040 Land Use Regulation: Comprehensive Plan shall adopt or amend provisions governing the use and occupancy of land that may include: Zoning regulations restricting use of land and improvements by geographic district; Land use permit requirements designed to encourage or discourage specified uses and construction of specified structures, or to minimize unfavorable effects of uses and construction of structures; and Measures to further goals and objectives of comp plan.

(AK-3) 13 AAC 50.020. Building Code: The Division of Fire Prevention reviews and adopts building codes every three years. The Division makes necessary changes to tailor the code to Alaska's conditions. Building codes are enforced by the Division of Fire Prevention and apply to all new construction, repair, remodel, addition, or change of occupancy of any building/structure or installation or change of fuel tanks, except for residential housing that is a triplex or smaller. Some jurisdictions, namely Anchorage, Juneau, Fairbanks, Kenai, Seward, Kodiak, Sitka, and Soldotna have the ability to adopt and enforce their own building codes provided they are at least as restrictive as the State adopted code.

Arizona

(AZ-1) Arizona Revised Statutes (ARS), Title 26, establishes the Arizona Division of Emergency Management under the Department of Emergency and Military Affairs. Title 26 states the Division shall prepare for and coordinate those emergency management activities that may be required to reduce the impact of disaster on persons or property. ADEM is organized into four operational sections: Logistics, Preparedness, Operations, and Recovery. ADEM is also responsible for the administrative oversight of the Arizona Emergency Response Commission. The Mitigation Office falls under the Operations Section. The Mitigation Office is staffed by five employees which includes the State Hazard Mitigation Officer, Grant Program Manager, State and Local Hazard Mitigation Planning Program Manager, Programs and Projects Specialist (outreach and education), and an Administrative Assistant. The Operations Section coordinates emergency response and conducts hazard mitigation planning through the coordination and application of federal and state resources. It liaises with federal, state and local agencies to conduct a daily all-hazard threat assessment to ensure the emergency management community is not caught unaware.

The Recovery Section manages the Public Assistance Program (406 Mitigation). The Recovery Section is extremely proactive in regards to 406 Mitigation on federal as well as state disasters. Each Disaster Recovery Coordinator has received training on hazard mitigation and works with the subgrantees to include any and all potential 406 Mitigation measures in the project worksheets. The Arizona Administrative Code (R8-2-314) states, "The applicant shall comply with any mitigation requirements

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specified by the Director for repair or replacement projects subject to repeated damage from flooding or other threats to life or property", which advocates for mitigation on Public Assistance projects. The Mitigation Office and the Recovery Section coordinate very closely before, during and following disasters. The Recovery Section includes 406 and 404 mitigation information in all of their Applicant Briefings and training sessions. If there is a mitigation project which does not meet the requirements of 406 Mitigation, the Recovery Section will notify the Mitigation Office so it may be looked at for Mitigation grant funding.

The Preparedness Section is responsible for the State of Arizona Emergency Response and Recovery Plan (SERPP) which addresses the consequences of any emergency, disaster or incident in which there is a need for state resources in providing prevention, preparedness, response and/or recovery assistance activities. It is applicable to natural hazards and human-caused incidents. The Recovery and Mitigation Annex within the SERPP was consolidated and has been completely revised in mid-2007 as part of ESF #14.

The Arizona State Emergency Response Commission (AZSERC) oversees 15 Local Emergency Planning Committees and supports community, industry and government and academia in: planning, release and incident reporting, data management guidance for inventory reporting, public disclosure about hazardous chemicals and development of training and outreach programs. Also provides consultative services, workshops and coordinates development and review of plans and programs for local planning committees.

(AZ-2) Growing Smarter and Growing Smarter Plus Acts: Through a partnership among the Arizona Legislature, interested citizens, and the Arizona Governor's Office, a comprehensive effort was undertaken to address growth-related issues that resulted in the passage of the Growing Smarter Act of 1998 and the Growing Smarter Plus Act of 2000. Taken together, the Growing Smarter legislation provides comprehensive land use planning and zoning reforms, including the acquisition of open space, and gives residents of Arizona cities, towns, and counties a number of tools to shape growth in their own communities, such as the right to vote on general plans and restrictions on how general and comprehensive plans can be amended.

(AZ-3) Executive Order 2002-5 (Amending Executive Order 2001-2) Growing Smarter Oversight Council: Established Growing Smarter Oversight Council to continue to address growth-related issues and evaluate the effectiveness of the Growing Smarter and Growing Smarter Plus Acts. The Oversight Council consists of 25 appointed members representing a variety of private and public interests who are charged with the following tasks: monitoring the implementation of Growing Smarter and Growing Smarter Plus Acts; identifying obstacles to implementation and suggesting refinements to facilitate implementation; developing a method for measuring the effectiveness of the Acts; determining how compliance with the Acts should be addressed and suggesting improvements to the Acts; reporting annually to the Legislature, Governor's Office, and the citizens of Arizona.

(AZ-4) Arizona Administrative Code Title 7 Education Chapter 6 Section 760. Laws and Building Codes: To the extent required by law, school buildings shall be in compliance with federal, state and local building and fire codes and laws that are applicable to the particular building. At a minimum, the 1997 Uniform Building Code (UBC) is required to be met for new school facility construction and, as required, for building renovations in existing schools.

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Arkansas

(AR-1) Arkansas Code Annotated 12-75-101 et al: Directs the Arkansas Department of Emergency Management to maintain a management system that effectively and efficiently provides mitigation of and recovery from the effects of natural and man caused disasters. This goal is accomplished through a series of programs designed to identify all disasters threatening the State; assist state agencies, local governments, volunteer and other organizations in determining the means to mitigate disaster effects; develop procedures for fast and efficient deployment of identified resources to effectuate mitigation and recovery; continually exercise all plans, evaluate results and make modifications to ensure procedures are effective; and, coordinate the efforts of all organizations responding to disasters.

(AR-2) Executive Order EO 04-02: Executive order signed by Governor Mike Huckabee on August 4th, 2004 that orders that, as directed by Section 322 of the Federal Disaster Mitigation Act of 2000, all state offices, agencies, departments, and commissions integrate sound mitigation measures into all future planning initiatives and coordinate these efforts with the Arkansas Department of Emergency Management and the Arkansas All-Hazards Mitigation Plan. Provides 3 million annually for mitigation programs.

(AR-3) Act 247 Arkansas Earthquake Program (ACA 12-77 et seq.)– ADEM, under the authority granted by The Earthquake Preparedness Act of 1989 (Act 247)," works to ensure the safety and well being of the citizens of Arkansas from the risks associated with earthquakes within the state of Arkansas, as well as from seismic events outside the state which would have a direct effect on the state. The Earthquake Program carries out this mandate in a number of program areas. The law places emphasis on earthquake mitigation, preparedness, response, and recovery related functions, requiring the full cooperation of all other state and local government agencies, departments, and personnel. The pre-disaster program is required to coordinate comparable functions of the federal government including its various departments and agencies with recent earthquake program initiatives include consultation with the SONS 07 exercise as well as the Catastrophic Earthquake Planning effort.

The Arkansas Department of Emergency Management, under the authority granted by Act 247 of 1989, works to ensure the safety and well-being of citizens from the risks associated with earthquakes within or near the state of Arkansas. The Earthquake Program carries out this mandate in a number of program areas. The law places emphasis on earthquake mitigation, preparedness, response, and recovery related functions, requiring the full cooperation of all other state and local government agencies, departments, and personnel. The program is required to coordinate comparable functions of the federal government including its various departments and agencies with other states and localities, and with private agencies of every type.

(AR-4) Act 511 (Amendment 1049) Arkansas Hazard Mitigation Program – In 1993, the Arkansas Legislature approved Amendment 1049 to Act 511, establishing Arkansas as the first state in the nation to develop a state hazard disaster fund of $1 million. The goal of the program is to assist county governments that have suffered repetitive disaster losses. This is accomplished by funding projects that permanently solve these repetitive problems. The Arkansas Hazard Mitigation Grant Program is available for all counties to use. Every year, county judges are encouraged to apply for projects within their jurisdictions. Created by Amendment 1049 and 116 to Act 511, the Arkansas Mitigation program provides funding for projects in counties that have had repetitive damage situations, whether it is from floods, wind storms, earthquakes or other types of disasters. State mitigation programs challenge counties to select priority sites where repetitive damages occur and find permanent solutions to these

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problems. Completed projects have saved thousands of dollars. As more projects are funded, the savings to Arkansas will continue to grow. This Pre-Disaster program supports loss reduction by providing funding for mitigation initiatives.

The Arkansas Hazard Mitigation Program provides funding for projects in cities, counties, or municipalities that have had repetitive damage situations from flooding or any type of hazard. State mitigation programs challenge communities to select priority sites where repetitive damages occur and find permanent solutions to these problems. Projects must be cost effective. All Arkansas counties are eligible and can apply. The cap on projects is $150,000.00 and requires a 50% local match. Completed projects have saved thousand of dollars. As more projects are funded, the savings to Arkansas will continue to grow. To date, 188 projects from throughout the state have been funded at a total of $5,271,019. Most of these projects have been for bridge replacements, drainage improvements, and other projects not normally funded by federal mitigation programs.

(AR-5) Act 1100 (ACA 12-80-101 et seq.) Earthquake Resistant Design for Public Structures: It is the purpose of this chapter to protect the public by requiring that all public structures be designed and constructed to resist destructive forces when an earthquake occurs in the New Madrid Seismic Zone. Requires earthquake resistant design for all public structures and set penalties for non-compliance.

(AR-6) Act 136: Appropriated $125,000/yr. for the Arkansas Center for Earthquake Education and Technology Transfer at the University of Arkansas at Little Rock, also originated from the GEAC.

(AR-7) Arkansas Code Annotated 15-21-601 et seq. (Earthquake Activity): Earthquake activity in Arkansas has never been closely monitored by a local network of seismic stations and that the realistic assessment of seismic hazards in this state can only be accomplished by long-term local monitoring of earthquake activity in this state. Although the monitoring systems operated by St. Louis University and the Center for Earthquake Research and Information at the University of Memphis have provided a great deal of information for risk assessment in the New Madrid seismic zone, the need for monitoring within Arkansas has become apparent. It would be most beneficial to the residents of this state for a collaborative program to be established between St. Louis University, the University of Memphis, and the Arkansas Center for Earthquake Education and Technology Transfer at the University of Arkansas at Little Rock in order to coordinate efforts and prevent duplication. The Arkansas Center for Earthquake Education and Technology Transfer is ideally located to handle the logistics of installing and maintaining a network of seismic monitoring stations within this state and is committed to offering the necessary personnel and facilities to efficiently handle the undertaking. The focus will be on establishing long-term, continuous monitoring of earthquake activity in Arkansas in order to provide reliable data for a realistic seismic hazard assessment, and it is the intent of this subchapter to accomplish that purpose. The Arkansas Seismological Observatory shall: Monitor earthquake activity throughout the state; Assist in emergency planning and in providing early warning; Provide public education regarding earthquake hazards; Provide information useful for earthquake hazard mitigation; Provide the scientific community with relevant data; Provide real-time, immediate data regarding seismic activity to government agencies such as the Arkansas Department of Emergency Management, the Arkansas Geological Survey, and critical facilities that operate in the region such as Arkansas Nuclear One, the National Center for Toxicological Research, and the Army Nerve Gas Facility; and Establish a collaborative relationship with St. Louis University and the University of Memphis in order to coordinate efforts and prevent duplication of effort.

(AR-8) Arkansas Fire Prevention Code (ACA 25-15-201 through 214) – The “building code” in Arkansas is part of the Arkansas Fire Prevention Code. The Arkansas Fire Prevention Code consists of three volumes:

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Volume I is the Fire Code based on the International Fire Code; Volume II is the Building Code based on the International Building Code; Volume III is the Residential Code based on the International Residential Code. The Arkansas Fire Prevention Code is adopted by the state and applies statewide.

California

(CA-1) Field Act (Education Code-§17281, et seq.) -In 1933, one month after the Long Beach Earthquake destroyed 70 schools, seriously damaged 120 others, and caused minor damaged to 300 more, California passed the Field Act to ensure seismic safety in new public schools. The Act establishes regulations for the design and construction of K-12 and community college buildings. The Division of the State Architect within DGS enforces the Field Act.

(CA-2) Riley Act -Following the 1933 Long Beach Earthquake, the state also passed the Riley Act, which requires local governments to have building departments that issue permits for new construction and alterations to existing structures and conduct inspections. Permit fees paid by building owners generally fund the work of local building departments. The Act also set minimum seismic safety requirements that have since been incorporated into all building codes.

(CA-3) Garrison Act-Requires school boards to assess building safety of pre-Field Act schools, ordered modernization of non-field act compliant structures.

(CA-4) Strong Motion Instrument Act (Public Resources Code§§2700-2709.1)-The state passed the Strong Motion Instrumentation Act in 1972 in response to the extensive damage to buildings and bridges caused by the 1971 San Fernando Earthquake. The earthquake highlighted the need for more data on strong ground shaking during earthquakes and on the response of structures to the shaking. The Act established a statewide network of strong motion instruments to gather vital earthquake data for the engineering and scientific communities. Data obtained from the strong motion instruments is used to recommend changes to building codes, assist local governments in the development of their general plans, and help emergency response personnel in the event of a disaster.

(CA-5) Seismic Safety General Plan Element (Government Code § 65302)-Requires city and county plans to include seismic safety elements.

(CA-6) Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code § 2621-2630)-The state passed the Alquist-Priolo Earthquake Fault Zoning Act in 1972 to mitigate the hazard of surface faulting to structures built for human occupancy. The law was another response to the 1971 San Fernando Earthquake, which produced extensive surface fault ruptures that damaged numerous homes, commercial buildings, and other structures. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. Before issuing building permits, cities and counties must require a geologic investigation to ensure that proposed buildings will not be constructed across active faults. Proposed building sites must be evaluated by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault.

(CA-7) Alfred E. Alquist Hospital Facilities Seismic Safety Act (Health and Safety Code§129675)- The loss of emergency functions and hospital collapses due to the 1971 San Fernando Earthquake prompted passage of the Hospital Seismic Safety Act of 1973. Regulates the design, construction and alteration of hospitals; set seismic safety standards for new hospitals; created an advisory Hospital Building Safety Board. Office of Statewide Health Planning & Development enforces this Act.

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(CA-8) Seismic Safety Commission Act (Business and Professions Code §1014)-The 1971 San Fernando Earthquake highlighted weaknesses in California's earthquake risk management policies. To address these weaknesses, in 1975 the state legislature created the independent California Seismic Safety Commission (CSSC) to provide a consistent earthquake policy framework for the state. The mission of CSSC is "to provide decision makers and the general public with cost-effective recommendations to reduce earthquake losses and expedite recovery from damaging earthquakes." The commission is also responsible for implementing the California Earthquake Hazards Reduction Act, which requires CSSC to "prepare and administer a program setting forth priorities, funding sources, amounts, schedules, and other resources needed to reduce statewide earthquake hazards."

(CA-9) Earthquake Hazard Reduction Program (Senate Bill 1279)-Directs California Seismic Safety Commission to assess policy and program implications of earthquake prediction and to develop seismic safety program and financing plan for the state.

(CA-10) Alquist Hospital Facilities Seismic Safety Act of 1983 (Health and Safety Code §§130000-130070)- Requires design and construction standards for hospitals; requires that after Jan. 1, 2008 any general acute care hospital building determined to be at potential risk of collapse or poses a risk of significant loss of life be used only for nonacute care.

(CA-11) California Earthquake Hazards Reduction Act of 1986 (Government Code §8870, et seq.)- After the 1985 Mexico City Earthquake, in 1986 California passed the Earthquake Hazards Reduction Act, which called for a coordinated state program to implement new and expanded activities to significantly reduce earthquake threat. The program is coordinated by California Seismic Safety Commission, which is required to specify priorities, funding sources and amounts, schedules, and other resources. Although historically funded by the state general fund, since the 2003-2004 fiscal year, the program was funded by fees imposed on property insurance companies.

(CA-12) Un-reinforced Masonry Building Law (Government Code §§ 8875-8875.10)-In response to the 1983 Coalinga Earthquake, in 1986 the state legislature enacted the Un-reinforced Masonry Building Law, which requires local governments in high seismic regions of California to inventory un-reinforced masonry buildings, establish mitigation programs, and report progress to the CSSC. As of 2003, 251 local governments have established programs and 16,761 buildings have either been retrofitted or demolished. Cities and counties rely on a variety of funding sources, including building permit fees, to pay for these programs. Some local programs offer financial, planning, and zoning incentives to building owners for retrofit. The CSSC periodically reports on the progress made by local programs in a publication entitled Status of the Un-reinforced Masonry Building Law, most recently in 2003.

(CA-13) Essential Services Building Seismic Safety Act (Health and Safety Code §16000)-In 1986 the state passed the Essential Services Building Seismic Safety Act to require enhanced regulatory oversight by local governments during the design and construction of new essential service facilities, such as fire and police stations and emergency communications and operations facilities. The Division of the State Architect within DGS enforces this Act. Pursuant to the Act, the Division of the State Architect within DGS adopted regulations that apply to the construction of all new essential services buildings (California Code of Regulations, Title 24, Part 1, §4-201 to §4-249). There are no statewide regulations for evaluating and retrofitting locally regulated essential services buildings that existed prior to 1986 except for unreinforced masonry buildings in some jurisdictions. Some local governments and state agencies have voluntarily retrofitted or replaced their vulnerable buildings.

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(CA-14) Katz Act (Education Code §§35295-35297)-Requires all private schools to develop disaster plans and an earthquake emergency procedure system.

(CA-15) Bridge Seismic Retrofit Program (Senate Bill 2104)-Requires CalTrans to prepare an inventory of all state-owned bridges which require strengthening or replacement to meet seismic-safety standards, and prepare a plan and schedule for completion. **Note:** Since the 1971 San Fernando Earthquake, CalTrans has been authorized to seismically retrofit vulnerable state and local bridges. Phase 1 consisted of retrofitting 1,039 state-owned single- and multiple-column bridges at a cost of $815 million. Phase 2 consisted of retrofitting the remaining 1,364 multiple-column state bridges at a cost of approximately $2 billion. Approximately $1.5 billion is being spent to replace major non-toll bridges and $4.6 billion for major toll bridge retrofits and replacements. Replacement costs include significant non-seismic upgrades. Costs for retrofitting 1,212 locally owned bridges are expected to be approximately $1 billion. Funds come from the State Transportation Improvement Fund, the State Highway Account, FEMA public assistance, sales tax increments, and gasoline taxes.

(CA-16) Earthquake Safety and Public Buildings Rehabilitation Bond Act of 1990 (Prop 122 & Government Code §§ 8878.50-8878.52)-Proposition 122 was passed by voters in June 1990 after the 1989 Loma Prieta earthquake revealed vulnerabilities to state-owned and essential services buildings. The bond measure authorized the state to issue $300 million in general obligation bonds for the seismic retrofit of state and local government buildings ($250 million for state-owned buildings and $50 million for partial financing of local government essential services facilities). The Seismic and Special Programs Section of DGS' Real Estate Services Division administers Proposition 122 grant programs.

(CA-17) Seismic Hazards Mapping Act (Public Resources Code §§ 2690-2699.6)-The Seismic Hazards Mapping Act, passed in 1990, directs the Department of Conservation to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the Act is to reduce the threat to public safety and to minimize the loss of life and property by identifying and mitigating these seismic hazards. The Act requires geotechnical investigations to identify hazards and formulate mitigation measures before permitting most developments within mapped Zones of Required Investigation.

(CA-18) Health & Safety Code § 1226.5-Establishes seismic safety standards for ambulatory surgical centers; requires fixed medical equipment (floor roof or wall mounted) to be installed using services of licensed architect or structural engineer; and requires inspection every five years.

(CA-19) Health and Safety Code §§ 19210-19214- Requires new and replacement water heaters to be braced and anchored .

(CA-20) Executive Order D-86-90-Requires CalTrans to prepare plan to retrofit transportation structures; requests UC and requires CSU to give priority consideration to seismic safety in allocation of funds for construction projects.

(CA-21) California Earthquake Authority (Insurance Code §§ 10089.5-10089.54)-Creates the California Earthquake Authority and authorized CEA to issues policies of basic earthquake insurance.

(CA-22) Education Code§17317- Requires Department of General Services to conduct inventory of public school buildings that are concrete tilt-up or have nonwood frame walls that do not meet requirements of 1976 UBC by Dec. 31, 2001

(CA-23) Government Code §8587.7-Program Requires Office of Emergency Services, in cooperation with State Department of Education, Department of General Services and the Seismic Safety Commission to

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develop an educational pamphlet for use by K-14 personnel to identify and mitigate risks posed by nonstructural earthquake hazards.

(CA-24) Health and Safety Code §§19180-83 & §§19200-05-Authorizes local governments to adopt ordinances requiring installation of earthquake sensitive gas shutoff devices in buildings due to motion caused by an earthquake; allows Division of the State Architect to establish a certification procedure for installation.

(CA-25) Streets & Highways Code §188.4-Program Authorizes retrofit of state-owned toll bridges using seismic toll surcharge.

(CA-26) Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 (Proposition 1B, Government Code §8879.23(i))-2006 Essential facility seismic safety Program Provides $125 million funding for seismic retrofit work on local bridges, ramps, and overpasses; establishes Local Bridge Seismic Retrofit Account.

(CA-27) California Emergency Services Act (Government Code §8550)- The California Emergency Services Act provides the legal authority for emergency management and the foundation for coordination of state and local emergency response, recovery, preparedness, and mitigation activities throughout California.

(CA-28) Disaster Recovery Reconstruction Act, Government Code §8877.1-The Legislature finds and declares that the impact of the Mexico City earthquake disaster of September 19, 1985, has rendered more cogent and compelling the findings of the Legislature set forth in Section 8870, particularly subdivision (c) thereof, and heightened the need for authority for local agencies to engage in effective pre-event and post-event activity to accomplish those goals set forth in paragraph (4) of subdivision (b) of Section 8872. It is the intent of this chapter to provide that authority. 8877.3. It is the purpose of this chapter to authorize, guide, and otherwise enable cities, counties, and other entities to prepare in advance of a disaster, such as a devastating earthquake, for the expeditious and orderly recovery and reconstruction of the community or region. Each city, county, or other local subdivision of the state, may prepare, prior to a disaster, plans and ordinances facilitating the expeditious and orderly recovery and reconstruction of the area under its jurisdiction, should a disaster occur. These plans and ordinances may include any of the following: An evaluation of the vulnerability of specific areas under its jurisdiction to damage from a potential disaster, together with streamlined procedures for the appropriate modification of existing general plans or zoning ordinances affecting those areas after a disaster. A contingency plan of action and organization for short-term and long-term recovery and reconstruction to be instituted after a disaster.

(CA-29) Economic Disaster Act of 1984, Government Code §8695 - The Legislature finds and declares that the disaster response of state agencies does not adequately focus on the economic impact of a natural disaster on the business community. 8696. It is the purpose of this chapter to institutionalize the planning and response of state agencies to disasters in order to reduce economic hardship stemming from these disasters to business. Upon the completion of the emergency phase and the immediate recovery phase of a disaster, appropriate state agencies shall take actions to provide continuity of effort conducive to long-range economic recovery. The Director of the Office of Emergency Services shall invoke the assignments made pursuant to Section 8595, specifying the emergency functions of each agency or department. The Director of the Office of Emergency Services,

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in executing the purposes of this chapter, shall establish appropriate task forces or emergency teams to include concerned elements of federal, state, and local governments and the private sector.

(CA-30) Natural Disaster Assistance Act, Government Code §8680-provides state financial assistance for recovery efforts to counties, cities and/or special districts after a state disaster has been proclaimed. The applicant must incur a minimum aggregate total damage cost of $2,500 state share for each declared disaster for costs to be eligible under CDAA. A local agency must submit a Project Application (OES 126) to the California Emergency Management Agency (Cal EMA) within 60 days after the date of a local proclamation. When filing an application for assistance, an applicant may attach a List of Projects (OES 95). Applicants are also required to have on file with Cal EMA, a resolution designating an authorized representative (OES 130) for each disaster. Cal EMA coordinates the state's response to major emergencies in support of local government. The primary responsibility for emergency management lies with local government. Local jurisdictions first use their own resources, and as they are exhausted, obtain more from neighboring cities and special districts, the county in which they are located, and other counties throughout the state through the Statewide Mutual Aid System. Cal EMA serves as the lead agency for mobilizing the State's resources; it also maintains oversight of the State's Mutual Aid System. During an emergency, Cal EMA coordinates the state's response efforts. After a natural or man-made event causes extensive damage and a state disaster has been declared, Cal EMA has the regulatory responsibility to act as the grantor for the California Disaster Assistance Act (CDAA). The CDAA program may be implemented as a "stand alone" funding source following an Cal EMA Agency Secretary's Concurrence for a local emergency, or a Governor's Proclamation when there is no federal declaration.

(CA-31) Natural Hazards Disclosure Act, Civil Code §1102 - This article applies to the transfer by sale, exchange, installment land sale contract , lease with an option to purchase, any other option to purchase, or ground lease coupled with improvements, of any real property described in subdivision or residential stock cooperative, improved with or consisting of not less than one nor more than four dwelling units. NATURAL HAZARD DISCLOSURE STATEMENT-The transferor and his or her agent(s) or a third-party consultant disclose the following information with the knowledge that even though this is not a warranty, prospective transferees may rely on this information in deciding whether and on what terms to purchase the subject property. The following are representations made by the transferor and his or her agent(s) based on their knowledge and maps drawn by the state and federal governments. This information is a disclosure and is not intended to be part of any contract between the transferee and transferor. The disclosures must indicated if the real property lies within any of the following hazardous areas: A SPECIAL FLOOD HAZARD AREA (Any type Zone "A" or "V) designated by FEMA; AN AREA OF POTENTIAL FLOODING shown on a dam failure inundation map; A VERY HIGH FIRE HAZARD SEVERITY ZONE; A WILDLAND AREA THAT MAY CONTAIN SUBSTANTIAL FOREST FIRE RISKS AND HAZARDS; AN EARTHQUAKE FAULT ZONE; and/or A SEISMIC HAZARD ZONE**.**

(CA-32) Planning and Zoning Law, Government Code 65000-Establishes the protocols and authority for land-use, planning and zoning laws for local jurisdictions throughout the state. The Legislature finds and declares that California's land is an exhaustible resource, not just a commodity, and is essential to the economy, environment and general well-being of the people of California. It is the policy of the state and the intent of the Legislature to protect California's land resource, to insure its preservation and use in ways which are economically and socially desirable in an attempt to improve the quality of life in California. The Legislature also finds that decisions involving the future growth of the state, most of which are made and will continue to be made at the local level, should be guided by an effective

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planning process, including the local general plan, and should proceed within the framework of officially approved statewide goals and policies directed to land use, population growth and distribution, development, open space, resource preservation and utilization, air and water quality, and other related physical, social and economic development factors. 65030.2. Costs and benefits of growth. It is further the policy of the state and the intent of the Legislature that land use decisions be made with full knowledge of their economic and fiscal implications, giving consideration to short-term costs and benefits, and their relationship to long-term environmental impact as well as long-term costs and benefits. The Legislature further finds and declares that recommendation, continuous evaluation and execution of statewide environmental goals, policies and plans are included within the scope of the executive functions of the Governor and responsibility for assuring orderly administration of this process within state government should be assigned to a governmental unit reporting directly to the Governor.

Colorado

(CO-1) Senate Bill 13, C.R.S. 6-6.5-101, 1984, relates to geologic hazards in requiring all residential developers to analyze and disclose any potentially hazardous conditions to prospective home buyers. …" (Colorado Landslide Hazard Mitigation Plan 1988)

(CO-2) House Bill 1045, C.R.S. 22-32-124 (1), 1984, requires that, prior to the acquisition of land for school buildings sites or construction of any buildings thereon, the board of education must consult with the Colorado Geological Survey regarding potentially swelling soils, mine subsidence, and other geologic hazards and determine the geologic suitability of the site for its proposed use." (Colorado Landslide Hazard Mitigation Plan 1988).

(CO-3) 1974 – House Bill 1041, Chapter 106, C.R.S. 1963, as amended. Areas and Activities of State Interest – An Act Concerning Land Use, and Providing for Identification, Designation, and Administration of Areas and Activities of State Interest, and Assigning Additional Duties to the Colorado Land Use Commission and the Department of Local Affairs, and Making Appropriations Therefore. This Act involved comprehensive treatment of hazards and charged local governments with legal responsibility for designation and administration of hazardous areas of state interest.

(CO-4) 1974 – "House Bill 1034, C.R.S. 29-20-101, et seq., 1974, is the "Local Government Land Use Control Enabling Act." The act gives authority to local governments to plan and regulate the use of land within their jurisdictions, including regulating development and activities in hazardous areas. The act then allows geologic hazards to be used as a basis for land-use decisions. … (Colorado Landslide Hazard Mitigation Plan 1988).

(CO-5) C.R.S. 30-28-101, et seq., 1972, concerns the division of land into sites, tracts, or lots, and is often referred to as the "Subdivision Law." The bill requires that subdivision proposals be evaluated for wildfire safety and geologic conditions prior to approval by a county and applies to the division of land into parcels of less than 35 acres within a county. …" (Colorado Landslide Hazard Mitigation Plan 1988, Wildfire Hazard Mitigation Plan 1995)

(CO-6) C.R.S. 34-1-103. Legislation outlines the Colorado Geological Survey's responsibilities and general statutory authority. "The Colorado Geological Survey shall function to provide assistance to and cooperate with the general public, industries, and agencies of state government…in pursuit of the following objectives…a) To assist, consult with, and advise existing state and local government agencies on geologic problems…c) To conduct studies to develop geological information…g) To evaluate the physical features of Colorado with reference to present and potential human and animal use…, and I) To

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determine areas of natural geologic hazards that could affect the safety of or economic loss to the citizens of Colorado (Colorado Landslide Hazard Mitigation Plan 1988).

(CO-7) Colorado Statutes : Title 30 Government - County: County Planning and Building Codes: Article 28 County Planning and Building Codes: Part 1 County Planning: 30-28-106.

Connecticut

(CT-1) Connecticut Floodplain Management and Natural Hazards Mitigation Act of 2004: During 2004, the Connecticut Legislature passed the Connecticut Floodplain Management and Hazards Mitigation Act. The Act mandates state and local compliance with the National Flood Insurance Program (44 CFR, Part 59 et seq.) and requires municipalities to revise their current floodplain zoning regulations or ordinances to include new standards for compensatory storage and equal conveyance of floodwater. The legislation imposes an additional $10 increase to a current land use fee in order to fund a new state hazards mitigation and floodplain management grant program, and designates the DEP as the administrating department for a new mitigation grant program created by this Act. The new grant program will be known as the Connecticut Mitigation Assistance Grant (CMAG). The CMAG will provide the State the ability to fund up to 90% of the cost for projects that plan for or mitigate the effects of natural disasters including but not limited to floods, wildfires and hurricanes. These funds can be accessed by municipalities to: 1) Prepare Natural Hazards Mitigation Plans; 2) Prepare applications to participate in the NFIP's Community Rating System (CRS); or 3) complete hazards mitigation projects in accordance with approved Natural Hazards Mitigation Plans. Regulations and grant requirements are currently being developed by the DEP. At least sixty percent of the funds collected from the sale or transfer of property shall be used to fund natural hazards mitigation activities under this Act. The remaining 40% may be used for staffing and overhead necessary to administer the planning and project grants.

(CT-2) Connecticut General Statutes Chapter 541 (Building, Fire, and Demolition Code): The lead agency for the adoption and administration of building code provisions for wind and seismic matters is the Office of the State Building Inspector. The 2005 State Building Code was adopted effective December 31, 2005. The 2003 International Residential Code (IRC) portion of this code regulates construction of all detached one- and two-family dwellings and all townhouses up to and including three-stories in height. The 2003 International Building Code (IBC) portion of this code regulates all other construction.

This may result in potentially large levels of structural damage for buildings built prior to 1975 in the event of a future earthquake occurring in Connecticut. Connecticut updated its building codes again in 1992 to include the new Building Officials and Code Administration (BOCA) codes for seismic activity.

(CT-3) Connecticut General Statutes Title 28, Chapter 517, Section 28-9, 28-15a, and 28-15b, Civil Preparedness and Emergency Services: Outlines the roles and responsibilities of the Dept. of Emergency Management and Homeland Security. DEMHS is responsible for: Providing a coordinated, integrated program for state-wide emergency management and homeland security; Directing the preparation of a comprehensive plan and program for the civil preparedness of the State; Coordinating with state and local government personnel, agencies, authorities, and the private sector to ensure adequate planning, equipment, training, and exercise activities; Coordinating emergency communications and communication systems of the state and local government personnel, agencies, authorities, the general public, and the private sector; and Distributing and coordinating the distribution of information and security warnings to state and local government personnel, agencies, authorities, and the general public.

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Florida

(FL-1) Rule 9B-74 Florida Administrative Code The Florida Building Code (FBC): The 1998 Florida Legislature passed a building code reform law which mandated a unified statewide building code. The Florida Building Code became effective on March 1, 2002 and replaces more than 400 local and State building codes. The FBC is a statewide building construction regulatory system that places emphasis on uniformity and accountability in order to ensure building strength in the events of natural disasters. The building code is implemented and enforced locally by individual counties. As a rule, all construction in the state must adhere to the Florida Building Code. By imposing and enforcing this rule, the local jurisdictions ensure that their structures are more resistant to certain types of natural disasters, especially to wind damage. The 2010 FBC update will further mitigate against natural hazards by incorporating the flood resistant standards of the International Codes.

This established a system to address natural hazards in design and construction of all public and private buildings throughout the state. It is designed to make the local building process more efficient, increase accountability, bring new and safer products to the market, increase consumer confidence, and better protect the residents of this natural disaster prone state. The Code integrates plumbing, mechanical, gas, electrical and building codes with public school, energy and accessibility codes, and state regulations for facility licensing. The Code correlates with the fire protection and life safety requirements of the Florida Fire Protection Code. It mitigates against hazards in hazard prone areas by integrating special measures such as those for wind born debris regions and flood prone areas. The Code focuses on public safety, increases local enforcement powers, and incorporates State-of-the-art hurricane protection. Local governments now have the authority to be more stringent when justified by local conditions. Local governments may conduct plan reviews and inspections of State-owned buildings except for correctional and health care facilities. Local school boards, community colleges, and universities may opt to use their local government as the code enforcement authority or they may continue to enforce the Code themselves. The Code is maintained by the Florida Building Commission (FBC) which conducts major updates every three years. Although the Commission does not review or approve local amendments prior to local adoption, it reviews updates during major revisions and may include or rescind them.

(FL-2) Chapter 163, Florida Statutes - Local Comprehensive Planning (Growth Management Act) Florida's growth management laws (F.S. 163.3178) requires all of Florida's 67 counties and 476 municipalities to adopt local government Comprehensive Plans that guide future growth and development. For coastal communities, this includes a coastal management element to safeguard lives, property, and coastal resources. The Legislature limits public expenditures in areas subject to destruction by natural disasters. All coastal management elements must have a component that outlines principles for hazard mitigation. Safe evacuation of the coastal population must be considered in current and future land-use plan elements. Additionally, a coastal high-hazard area, which is equal to a hurricane Category One evacuation zone as defined by the SLOSH model, needs to be identified in the coastal element. This statute is applicable in both pre- and post-disaster situations.

(FL-3) Chapter 186, Florida Statutes – State and Regional Planning Chapter 186, Florida Statutes outlines the growth management portion of the state comprehensive plan and recognizes the need for interagency and governmental unit cooperation. This section provides strategic guidance for state, regional, and local measures to implement the state comprehensive plan for physical growth and development. This statute is applicable in both pre and post-disaster situations.

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(FL-4) Chapter 187, Florida Statutes - The State Comprehensive Plan This statute designates that Florida's State Comprehensive Plan provide long-range policy guidance for the —orderly social, economic, and physical growth of the state. The Florida Legislature reviews it biennially, and implementation of its policies requires legislative action unless otherwise specifically authorized by the constitution or law. The statute further states that—goals and policies contained in the State Comprehensive Plan shall be reasonably applied where they are economically and environmentally feasible, not contrary to the public interest, and consistent with the protection

(FL-5) Chapter 252, Florida Statutes (State Emergency Management Act) Chapter 252 outlines several activities vital to hazard mitigation in the State of Florida. The State Emergency Management Act: Justifies the creation of the Division of Emergency Management**;** Provides a framework for interstate cooperation and mutual assistance**;** Necessitates inter-agency, federal, private sector, and inter-governmental unit cooperation and support**;** Establishes emergency mitigation as a continuing process involving research and application of measures to effectively prepare for and mitigate emergency impacts; Mandates the development and required contents of the Florida Comprehensive Emergency Management Plan (CEMP) which establishes a framework through which the State of Florida prepares for, responds to, recovers from, and mitigates the impacts of a wide variety of disasters that could adversely affect the health, safety, and/or general welfare of the residents of the state. Mandates the development and contents of individual agency comprehensive and specific disaster preparedness plans that coincide with the CEMP**;** Necessitates funding provisions for mitigation and provides methods or specifies their allocation.

(FL-6) Chapter 252.38, Florida Statutes Directs the DEM to establish a statewide competitive grant application and allocation process to construct or improve county and designated state alternate Emergency Operations Centers (EOC). It requires Florida's counties to establish a primary (and secondary) EOC to continue government and direct emergency operations. Nevertheless, no law, rule, standard or code sets forth minimum survivability or workspace criteria for county EOCs. Therefore, the emergency management EOC-function over other day-to-day uses is quite variable.

(FL-7) Chapter 252.44, Florida Statutes – Emergency Mitigation This section requires State Agencies to study emergency mitigation matters. The governor is to direct, consider, and use them to make recommendations to the legislature, local governments, and other appropriate public and private entities as may facilitate measures for mitigation of the harmful consequences of emergencies. The section requires State Agencies to keep land uses, construction, and facilities under continuing mitigation study as well as identify those areas particularly susceptible to manmade or natural hazards. This section also approves the governor to request legislative action if appropriate mitigation measures are not taken.

(FL-8) Rule 9J-5, Florida Administrative Code - Review of Local Comp Plans Rule 9J-5, FAC establishes minimum criteria for the preparation, review, consistency, and compliance of local government comprehensive plans and amendments. Rule 9J-5, mandates that local comprehensive plans be consistent with the appropriate strategic regional policy plan and the State Comprehensive Plan and recognizes the major role that local government will play in accordance with the mandates in accomplishing the goals, and policies of the appropriate comprehensive policy plan and the State Comprehensive Plan. Local Mitigation Strategies must be integrated with local comprehensive planning efforts. This statute is applicable in both pre and post-disaster situations.

(FL-9) Rule 9G-6, Florida Administrative Code- Review of Local Emergency Management Plans Chapter 9G-6, FAC establishes compliance criteria, as well as compliance review procedures for the County and

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Municipal Emergency Preparedness Management Plan (CEMP) that consist of provisions addressing aspects of preparedness, response, recovery and mitigation. Pursuant to Chapter 252.35 (b), the Chapter 9G-6 ensures that county plans (and the municipal plans for those municipalities that elect to establish emergency management programs) are coordinated and consistent with the state comprehensive emergency management plan. This statute is applicable in both pre- and post-disaster situations.

Georgia

(GA-1) Georgia Emergency Management Act of 1981, as amended, OCGA 38-3-1: Establishes Georgia Emergency Management Agency and provisions to ensure preparations will be adequate to deal with such emergencies or disasters; generally to provide for the common defense and to protect the public peace, health, and safety; and to preserve the lives and property of the people of Georgia.

(GA-2) Georgia Planning Act of 1989, OCGA 12-2-8-1989-Created the State Comprehensive and Coordinated Planning Program to encourage effective growth management. This program includes the development and updates of minimum standards for local and regional planning. The DCA provides planning grants while the Regional Development Centers (RDC) assist in the preparation of comprehensive and specific plans. The DCA and this program have major responsibilities for the implementation of the statewide coordinated planning program. Many opportunities exist with this program to encourage and promote the implementation of local government hazard mitigation programs or measures in connection with the state-required preparation and implementation of local government plans. This comprehensive and vertically-integrated planning approach is especially applicable to floodplain management and construction standards (mitigation approaches). The State of Georgia's policies regarding development in hazard prone areas specifically cover the areas prone to inland and coastal flooding hazards. These policies neglect to cover development in areas prone to other hazards such as wind and seismic hazards. However, the Georgia legislation does include building code standards that regulate the actual structure instead of the development of the area.

(GA-3) Georgia Housing Codes, OCGA 8-2-20-Georgia Housing Codes (the Uniform Codes Act) and the Uniform Standards Code for Manufactured Homes and Installation of Manufactured and Mobile Homes Act. Essentially, Georgia's uniform construction codes are designed to help protect the life and property of citizens from faulty design and construction; unsafe, unsound, and unhealthy structures and conditions; and the financial hardship resulting from rebuilding after a hazard event. In other words, these codes require a minimum standard of construction which minimally mitigates certain hazards. The Uniform Codes Act identifies the ten "state minimum standard codes" with each code typically consisting of a base code and a set of state amendments. Georgia law dictates that eight of the 10 codes are mandatory (applicable to all construction regardless of local enforcement) and two are permissive (only applicable if the local government chooses to adopt and enforce). The codes are as follows: Mandatory Codes: Georgia State Minimum Standard Building Code (International Building Code with Georgia Amendments); Georgia State Minimum Standard One and Two Family Dwelling Code (International Residential Code for One and Two Family Dwellings with Georgia Amendments); Georgia State Minimum Standard Fire Code (International Fire Code with Georgia Amendments); Georgia State Minimum Standard Plumbing Code (International Plumbing Code with Georgia Amendments); Georgia State Minimum Standard Mechanical Code (international Mechanical Code with Georgia Amendments); Georgia State Minimum Standard Gas Code (international Fuel Gas Code with Georgia Amendments);

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Georgia State Minimum Standard Electrical Code (National Electrical Code with Georgia Amendments); Georgia State Minimum Standard Energy Code (International Energy Conservation Code with Georgia Supplements and Amendments). Permissive Codes: International Property Maintenance Code; International Existing Building Code

As previously noted, the building, one and two family dwelling, fire, plumbing, mechanical, gas, electrical and energy codes are mandatory codes. Essentially, Georgia law dictates that any structure built in the state must comply with these codes regardless of the local government's decision\ to locally enforce. Though local governments do not adopt the mandatory codes, the local government must adopt administrative procedures in order to enforce the codes. However, the local government has the ability to choose which mandatory codes are enforced. The remaining codes, known as permissive codes, must be adopted by either ordinance or resolution by the local jurisdiction in order for the local government to enforce.

Hawaii

(HI-1) Hawaii Revised Statute, Chapter 26 and 126 Civil Defense Advisory Council: The Civil Defense Advisory Council, established and organized under Hawaii Revised Statute, Chapter 26 and 126, was founded in 1951. The Governor and the Director of Civil Defense may consult with the seven-member Advisory Council on matters pertaining to emergency management.

(HI-2) Hawaii Revised Statutes Chapter 226: State Planning Act: The legislature finds that there is a need to improve the planning process in this State, to increase the effectiveness of government and private actions, to improve coordination among different agencies and levels of government, to provide for wise use of Hawaii's resources and to guide the future development of the State. The purpose of this chapter is to set forth the Hawaii state plan that shall serve as a guide for the future long-range development of the State; identify the goals, objectives, policies, and priorities for the State; provide a basis for determining priorities and allocating limited resources, such as public funds, services, human resources, land, energy, water, and other resources; improve coordination of federal, state, and county plans, policies, programs, projects, and regulatory activities; and to establish a system for plan formulation and program coordination to provide for an integration of all major state, and county activities.

(HI-3) Hawaii Revised Statutes Chapter 205, State Land Use Law: establishes an overall framework of land use management whereby all lands in the State of Hawaii. Established the Land Use Commission. The Commission is responsible for preserving and protecting Hawaii's lands and encouraging those uses to which lands are best suited.

(HI-4) Hawaii Revised Statutes 128-19: Provides relief for negligence liability to private sector owners who volunteer the use of their facilities as an emergency shelter. The immunity protection that may be provided applies when an owner or controller of the facility meets the following criteria: (1) Their actions relating to the sheltering of people are voluntary; (2) They receive no compensation for the use of the property as a shelter; (3) They grant a license or privilege, or permit the property to be used to shelter people; (4) The Director of Civil Defense, or delegated agency or person, has designated the whole or any part of the property to be used as a shelter; (5) The property is used to shelter persons; and (6)The use occurs during an actual impending, mock, or practice disaster or attack.

(HI-5) Hawaii Revised Statutes 107-22 State Building Code Council: Act 82, SLH 2007 established the State Building Code Council (the Council) which is administratively attached to the Department of

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Accounting and General Services. The purpose of the Council is to establish a state building code which would eliminate the fragmented building requirements which currently exist between counties. The state building code would include the latest fire code as adopted by the State Fire Council, the latest edition of the International Building Code, the latest edition of the Uniform Plumbing Code, and Hawaii design standards to implement Act 5, Special Session Laws, 2005 as applicable to emergency shelters and essential government facilities.

Idaho

(ID-1) Idaho Disaster Preparedness Act of 1975 as amended (Idaho State Code Chapter 10, Title 46) is the key controlling State legislation for disaster planning in Idaho, establishing the foundation for disaster damage reduction. Further, the Governor's Executive Order, 2000-04 establishes mitigation as a State priority, assigns mitigation duties to various State agencies, and directs coordination responsibilities. The Idaho Bureau of Homeland Security (BHS) in the Military Division serves as the lead coordinating agency for preparedness, response, recovery, and mitigation efforts throughout the State.

(ID-2) Executive Order, 2000-04. The Executive Order assigns primary responsibility for formulating and directing the State's geologic hazard reduction effort to the Idaho Geologic Survey. Duties include hazard identification, analysis and mapping of the geologic threats, and provision of representatives for hazard mitigation teams. The Executive Order also assigns the Response and Recovery duties relevant to earthquakes: **Idaho Transportation Department** - engineering support to State mitigation activities. ; **State Department of Education** – promotion of mitigation activities to reduce the risk from structural and nonstructural hazards in school facilities; **Office of the State Board of Education** - promotion of mitigation activities to reduce the risk from structural and nonstructural hazards in colleges, universities and area vocational-technical facilities. **Idaho State Historical Society/State Historic Preservation Officer** – promotion of mitigation activities to reduce the potential loss of the State's historic and cultural resources and support NEPA review of all projects within the State; **Division of Building Safety** - promotion and development of mitigation activities in conjunction with the Departments of Administration and Education and the Bureau of Homeland Security. The Division of Buildings also works with local jurisdiction in the adoption and implementation of the IBC; and **Idaho Department of Water Resources** - Operation of the Dam Safety Program.

(ID-3) Idaho Code Title 39 Chapter 41 establishes the IBC including seismic provisions as the statewide building code standard.

(ID-4) Idaho Code Title 39 Chapter 80-The Idaho Legislature enacted legislation in 1990 to assure that all new school buildings are checked for conformity with the IBC which provides minimum earthquake safety standards). The Administrator for the Idaho Division of Building Safety is charged with implementing this statute and with the inspection of public school buildings.

Illinois

(IL-1) Illinois Emergency Management Agency Act - Created Illinois Emergency Management Agency and its authority to develop, plan, analyze, conduct, provide, implement and maintain programs for disaster mitigation, preparedness, response and recovery. (20 ILCS 3305/5) Further, the Illinois Administrative Code restates the IEMA mandate to prepare the State of Illinois to deal with disasters, to

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preserve the lives and property of the people of the State and to protect the public peace, health and safety in the event of a disaster. (29 Ill. Adm. Code 301.110)

(IL-2) Executive Order Number 2 (1990) Executive Order for the Reduction of Earthquake Hazards-Each State agency responsible for the design and construction of each new State building shall ensure that the building is designed and constructed in accord with appropriate seismic design and construction standards.

(IL-3) Illinois Building Commission Act. The Division of Building Codes and Regulations succeeded the Illinois Building Commission, created in 1996 by Illinois Building Commission Act. The Division acts as an informational resource to the Governor, General Assembly, governmental entities and the general public on the status of building codes in Illinois, especially codes that address State-funded construction. The Division primarily works with state codes in an attempt to understand the 30-plus state governmental agencies, 102 Counties and 1,286 Municipalities that have some jurisdiction over the myriad of building requirements. There are over 225 Illinois statutory references to building codes within the Illinois Compiled Statutes. All new schools built with State funds must comply with the 2007 International Building Code.

Indiana

(IN-1) Indiana Code 10-14-3 and Executive Order 05-09 - Establishing and clarifying duties of state agencies for all matters relating to emergency management "…under the provisions of IC 10-14-3, the Emergency Management and Disaster Law, the Governor is charged with the responsibility for ensuring that a comprehensive emergency management program exists that addresses all aspects of emergency and disaster mitigation, preparedness, response, and recovery;" Designated the Director of the Indiana Department of Homeland Security as the State Coordinating Officer for the for all matters relating to emergency and disaster mitigation, preparedness, response, and recovery in this State, and in all matters relating to the Federal Emergency Management Agency; Re-established and continued the Emergency Management Advisory Group and the Indiana State Mitigation Council. This executive order superseded 03-34 enacted by the previous administration.

(IN-2) Indiana Building Codes (Title 675 Indiana Administrative Code): Since 2002, Indiana has operated under the International Building Code for commercial buildings and the International Residential Code (IRC) for residential buildings. The greatest change in both codes is the significantly strict earthquake requirements, and the establishment of earthquake Design Areas instead of the current Earthquake Zones. In the code, eight counties (Davies, Gibson, Knox, Posey, Spencer, Sullivan, Vanderburgh, and Warwick) have strict seismic requirements on new construction of 1 and 2 family dwellings that is at least as rigorous as current commercial requirements. The rest of state will still have no seismic requirements for 1 and 2 family dwellings. There are new restrictions on townhouses in the following counties: the eight counties noted above, and Clay, Crawford, Dubois, Greene, Lawrence, Martin, Monroe, Orange, Owen and Perry.

Iowa

(IA-1) Iowa Code Section 29 Creates Dept. of Homeland Security and requires the administrator of the Homeland Security and Emergency Management Division to prepare a comprehensive plan for Homeland Security, disaster response, recovery, mitigation and emergency resource management for

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the state. The comprehensive plan is composed of the following parts: Iowa Emergency Response Plan; Iowa Hazard Mitigation Plan; Iowa Disaster Recovery Plan; Iowa Critical Asset Protection Plan.

(IA-2) Building Code-The State of Iowa has building codes for state owned facilities and encourages, but does not require, local jurisdictions to adopt the most current State Building Code. In 2006, the State adopted a new State Building Code and a State Historic Building Code. Both became effective January 1, 2007; however compliance for state owned facilities will not become mandatory until April 1, 2007. The State Building Code's core provision is the adoption by reference of the International Building Code 2006 edition. This code provides a comprehensive set of standards and requirements for structural and life safety in building construction. The State Historic Building Code is based upon the provisions of the International Existing Building Code, 2006 edition.

Adoption of building codes is at the discretion of individual cities and counties. The State Building Code Commissioner adopts building, fire and mechanical codes. Effective January 1, 2007 the State adopted the International Building Code, 2006 as its core building code. The adoption and enforcement of building codes relates to the design and construction of structures to standards and requirements for structural and life safety in building construction, including snow loads and withstanding high winds. Since 2003, the International Code Series (ICode) which have been adopted by the State includes provisions that address all NFIP minimum floodplain management requirements.

(IA-3) Chapter 414 of the Iowa Code-Zoning: Delegates zoning authority to the cities and provides broad discretion to separate incompatible land uses and direct future development. Zoning provides communities with the opportunity to establish land use patterns that are logical, orderly, attractive, and convenient. They may be used to keep inappropriate development out of hazard-prone areas and can designate certain areas for such things as conservation, public use, or agriculture. Cities are free to choose whether to have zoning. Cities that adopt zoning may structure their local zoning ordinances to meet local needs. All larger cities within the state and many of Iowa's smaller communities have adopted zoning ordinances. The level of zoning varies widely depending on the size and capabilities of the community. Many of Iowa's smaller communities that have adopted zoning have only residential, commercial, and agriculture zones.

(IA-4) Comprehensive Plan is required as the basis for a zoning ordinance (Iowa Code Section 414.3 (municipal) and Section 335.5 (county). The Comprehensive Plan is a long-range (10-20 year) guide for overall development in the community. The plan's purpose is to encourage compatible land use development, provide services efficiently, and coordinate development activities between both regional and local governmental entities, specific interest groups, and the general public. Areas covered by the Plan include, transportation, employment, housing, and access to clean air, water and open spaces. Specifically the Iowa Code states that the Comprehensive plan must be —designed…to secure safety from fire, flood, panic, and other dangers: to promote health and the general welfare… These codified basic mitigation requirements are fully integrated with the hazard mitigation planning goals and objectives at the state and federal level. Upon adoption, the Comprehensive Plan serves as a local jurisdiction statement of policy and a decision make tool.

Kansas

(KS-1) Kansas Emergency Management Act – Kansas Statutes Chapter 48, Article 9: Creates the Division of Emergency Management under the direction of the Adjutant General and outlines the emergency management responsibilities and capabilities of the Adjutant General. Appoints the governor

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as the Commander-in-Chief of the organized and unorganized militia and all other forces available for emergency duty as well as giving the governor the power to declare a state of disaster emergency and direct emergency operations. Directs the Division of Emergency Management to formulate a statewide emergency plan and outlines the duties of the division. Requires counties to establish and maintain a disaster agency responsible for emergency management, prepare a county emergency response plan, and coordinate efforts with the division. Establishes the Kansas Nuclear Safety Emergency Management Act.

(KS-2) Kansas Statutes Chapter 12- Article 7 - Planning and Zoning -Allows local governments to establish planning commissions and to adopt zoning regulations and comprehensive development plans.

(KS-3) Kansas Underground Utility Damage Prevention Act-Kansas Statutes Chapter 66, Article 18 Promulgates regulations for utility damage prevention.

Note: The Kansas state legislature has not implemented a statewide building code nor does it require comprehensive planning by local governments.

Louisiana

(LA-1) Louisiana Emergency Assistance and Disaster Act (LEADA) of 1993, revised in 2000, is the main legislation affecting mitigation programs in the State. Among various preparedness, response, and recovery operations, the LEADA purposes related to mitigation are as follows: To reduce vulnerability of people and communities of this state to damage, injury, and loss of life and property resulting from natural or man-made catastrophes, riots, or hostile military or paramilitary action; To authorize and provide for cooperation in emergency or disaster prevention, mitigation, preparedness, response, and recovery; and To authorize and provide for management systems embodied by coordination of activities relating to emergency or disaster prevention, mitigation, preparedness, response, and recovery by agencies and officers of this state, and similar state-local, interstate, and foreign activities in which the State and its political subdivisions may participate.

(LA-2) Executive Orders KBB 2004-34 establishes the Louisiana Emergency Response Commission. This 20-member committee is comprised of representatives from the following agencies or entities: The Department of Public Safety; The Department of Environmental Quality; The Department of Agriculture and Forestry; The Governor's Office of Homeland Security and Emergency Preparedness; The Louisiana Emergency Preparedness Association; and The Louisiana State University Firearm Training Program. Additionally, ten at-large members and representatives of environmental interests and the chemical industry serve on the commission.

(LA-3) Executive Order KBB 2004-35 reestablishes the State Hazard Mitigation Team , and clarifies its duties and functions. The SHMPC is comprised of representatives of the following state agencies that also serve on the State Hazard Mitigation Team (SHMT): The Governor's Office of Homeland Security and Emergency Preparedness; The Department of Transportation and Development; The Department of Wildlife and Fisheries; The Department of Environmental Quality; The Department of Natural Resources, Office of Coastal Restoration and Management; and The Department of Agriculture and Forestry.

The role of the SHMT is to provide technical assistance to GOHSEP. One specific SHMT task is to review, prioritize, and recommend funding levels for selected HMGP project applications. The SHMT also participates in mitigation planning, program development, and implementation. As a group, the SHMT

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has the most direct influence on how hazard mitigation is pursued in the State of Louisiana, outside of GOHSEP.

(LA-4) Executive Order KBB 2007-14 establishes the Homeland Security and Emergency Preparedness Advisory Council to support homeland security and emergency preparedness initiatives by linking state and local government efforts, and leveraging education, industry, and private sector initiatives, among other goals. The Council's work is related to and potentially supports hazard mitigation activities in Louisiana. The Council's ten members include representatives of: The Governor's Office of Homeland Security and Emergency Preparedness; The Louisiana National Guard; The Senate Select Committee on Homeland Security; The House Special Committee on Louisiana Homeland Security; The Department of Health and Hospitals; The Louisiana State Police; The Department of Social Services; The Department of Transportation and Development; The Department of Wildlife and Fisheries; and The Department of Justice.

(LA-5) Louisiana State Uniform Construction Code (La R.S. 40:1730.22 & 28)- Legislation created the Louisiana State Uniform Construction Code Council and adopted the Uniform Construction Code. The existing framework policy and regulations will be supported and enhanced. Local jurisdictions are currently charged with administration and enforcement of the State UCC, a building code adopted state-wide by the Legislature in 2005 that is consistent with the International Building Code (IBC) and International Residential Code (IRC), both developed by the International Code Council (ICC). The UCC results in structures that can withstand high winds and floods with exceptions made for certain industrial structures as well as farm and private recreational structures. UCC requirements went into effect on January 1, 2007, although the 2007 Legislature relaxed code requirements regarding work on existing one- and two-family dwellings. This program is coordinated at the state level by the Louisiana State Uniform Construction Code Council (LSUCCC) within DPS. LSUCCC has promulgation authority for the UCC with the exception of the Plumbing Code that is enforced by Department of Health and Hospitals (DHH). Review and enforcement powers for all aspects of the UCC for private property reside at the local level. (The Office of the State Fire Marshal has no enforcement authority relative to the UCC, although it is allowed to provide plan review services at the request of local jurisdictions; the Fire Marshal does have review and construction enforcement powers related to the Life Safety Code, Americans with Disability Act accessibility guidelines, and Energy Conservation for commercial structures only, among others; it has no authority over one- or two-family dwellings or townhouses that are regulated by the UCC.) LSUCCC can initiate civil litigation for non-compliance.

It is important to note that construction of State or Federal owned facilities is not subject to local permitting requirements. State facilities adhere to the Louisiana Building Code which is administered by the Department of Facility Planning and Control within the Division of Administration. However, State owned facilities are required to comply with local floodplain management ordinances including adhering to BFE and freeboard requirements set by parishes and municipalities.

Maine

(ME-1) Maine Emergency Management Act (Title 37-B, Chapter 13) – Establishes the Maine Emergency Management Agency to lessen the effects of disaster on the lives and property of the people of the State through leadership, coordination and support in the 4 phases of emergency management: mitigation, preparedness, response and recovery. Authorizes the creation of local organizations for emergency management in the political subdivisions of the State.

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There are no mitigation programs in the State of Maine dedicated solely to lessening the impacts of earthquakes, excluding that of all-hazards emergency management planning and emergency response agencies.

(ME-2) Maine Model Building Code (P.L. 2003, Chapter 580) - The new law creates the Maine Model Building Code ("MMBC"), which is composed of the IRC and IBC. The law does not mandate that any municipality adopt the MMBC, but requires that, if a municipality does voluntarily choose to adopt a new residential or non-residential building code, it must adopt the MMBC. The law allows municipalities the flexibility of adopting only portions of the MMBC and of amending the MMBC locally if it wishes to do so

Adoption of the MMBC also paved the way for enactment of **P.L. 2003, chapter 605** (LD 1663), which directs the State Planning Office to provide assistance to any municipality that adopts a rehabilitation building code that is consistent with the MMBC.

(ME-3) Model Downtown Rehabilitation Code (P.L. 2003, Chapter 605) – Directs the State Planning Office to provide assistance to any municipality that adopts a rehabilitation building code that is consistent with the Maine Model Building Code.

Maryland

(MD-1) Priority Funding Areas Act: Established in 1997, the Priority Funding Areas (PFAs) Act directs available state funding for growth related infrastructure towards identified PFAs (places or communities where governments have chosen to spend available funds). Such funding can be used for those projects such as highways, water construction, and economic development. Standards and criteria, which included permitted density, water, and sewer availability, were established for both counties and municipalities. MEMA has partnered with the Towson University Center for Geographic Information Sciences to create statewide maps identifying where Maryland's Priority Funding Areas intersect with defined hazard areas. MEMA will use this information to explore the possibility of revisions to State planning policy to take into account known hazard areas.

(MD-2) House Bill 1141-Task Force on the Future for Growth and Development in Maryland: This Task Force focuses on researching trends and population growth challenges as well as the impact of local policies on the environment and infrastructure. The group will study the linkage between smart growth, local land use plans, and various state-wide plans such as the state development, transportation, and housing plans. The Task Force also proposes that the state implement laws and recommendations that advance growth and development related best management practices. A final report of findings and recommendations is due out by December 1, 2008. In January 2008, the 21 members of the Task Force were announced. The Task Force will be staffed by Maryland Department of Planning and will serve as the Governor's Smart Growth Advisory Board. House Bill 1141 added four new required elements to local comprehensive plans, which include a water resources plan element, a municipal growth element, a priority preservation act element, and a workforce housing element. The first two of the required elements are particularly relevant to hazard mitigation. The water resources plan element requires that the land use sections of comprehensive plans address the effects of development on potable water supply and wastewater processing infrastructure. Counties and municipal governments, which are required to adhere to this element, must also ensure that adequate stormwater and wastewater management systems are in place. The second element of House Bill 1141 which pertains to mitigation affects only municipal governments. This element, the municipal growth element, requires that areas

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targeted for growth be studied to ensure that sensitive areas, such as wetlands, are protected. The review must consider land capacity, population projections, and infrastructure needs.

(MD-3) Article 66B of the Maryland Annotated Code: Empowers the majority of Maryland's local governments with land use and planning authority, thus providing them with the authority to guide growth and development (Articles 28 and 25A are similar regulations which apply to other local governments which are not covered by Article 66B).

(MD-4) Code of Maryland Regulations (COMAR 05-02-07 Maryland Building Performance Standards): Maryland's law related to building codes is called the Maryland Building Performance Standards (MBPS). It requires each jurisdiction in Maryland to use the same edition of the same building codes that are the International Building Code and the International Residential Code. The state has modified the IBC and the IRC to coincide with other Maryland laws. Each local jurisdiction in Maryland may modify these codes to suite local conditions. Please refer to the each local jurisdiction listed to view their local ordinance that may contain their modifications. Since ordinances change from time to time, please contact the local jurisdiction to obtain current information.

(MD-5) Maryland Emergency Management Agency Act (Title 14-101 et seq.) - To ensure that the State will be adequately prepared to deal with emergencies that are beyond the capabilities of local authorities, to provide for the common defense, to protect the public peace, health, and safety, and to preserve the lives and property of the people of the State, it is necessary to: establish a Maryland Emergency Management Agency; authorize the establishment of local organizations for emergency management in the political subdivisions; confer on the Governor and on the executive heads or governing bodies of the political subdivisions the emergency powers provided in this subtitle; and provide for the rendering of mutual aid among the political subdivisions and with other states in carrying out emergency management functions. Effective use of resources.- It is the policy of the State and the purpose of this subtitle to coordinate, to the maximum extent possible, all emergency management functions of the State with the comparable functions of the federal government, other states, other localities, and private agencies, so that the most effective preparation and use may be made of the resources and facilities available for dealing with any emergency.

Massachusetts

(MA-1) Civil Defense Act of 1950- Authorizes the creation of the Massachusetts Civil Defense Agency (predecessor to the Massachusetts Emergency Management Agency) and the development of a statewide civil defense program. The Massachusetts hazard mitigation program is administered jointly by the Massachusetts Emergency Management Agency (MEMA) in coordination with the Department of Conservation and Recreation (DCR).

(MA-2) MA Executive Order 144 and MA Executive Order 242- Amends and updates the Civil Defense Act of 1950 by creating the position of Secretary of Public Safety, coordinating emergency preparedness activities and the promulgation of a Comprehensive Emergency Response Plan for the state. The Massachusetts hazard mitigation program is administered jointly by the Massachusetts Emergency Management Agency (MEMA) in coordination with the Department of Conservation and Recreation (DCR).

(MA-3) State Board of Building Regulations & Standards/State Building Code (780 CMR)- Massachusetts State Building Code covers the entire state, applies to both public and private construction, and is administered through the local building inspectors with state oversight. Section

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3107 of the State Building Code contains most of the NFIP construction requirements related to buildings or structures. NFIP standards are an integral section of the state building code, ensuring that all new construction and substantial improvements meet national flood resistant standards. Many communities have enacted stricter standards under their local floodplain ordinances.

(MA-4) MGL Ch. 41 Zoning Act -implements local subdivision regulations. The planning board's responsibilities include recommending land use regulations to protect the public health, safety, and welfare. The Planning Board is the primary vehicle at the local level that ensures that new development incorporates federal and state storm water management "best management practices." The Planning Board is responsible for maintaining floodplain bylaws and ordinances to address current floodplain issues and updating them to ensure compliance with state and federal regulations. Often coordinates the hazard mitigation planning process and the implementation of hazard mitigation plans. Provides professional expertise in plan development, bylaw drafting, and grant application preparation.

Michigan

(MI-1) 1976 PA 390, as amended, the Michigan Emergency Management Act.-This Act and its subsequent Administrative Rules provide the Department of State Police with broad authority to carry out the emergency management activities of mitigation, preparedness, response and recovery within the State of Michigan. In addition, it empowers each state department to carry out the emergency tasks assigned to it by the Department of State Police in the Michigan Emergency Management Plan (MEMP) or other means – which includes the planning, development and implementation of hazard mitigation measures**.**

(MI-2) 2006 PA 110 (Michigan Zoning Enabling Act*) does provide some guidance with regard to the types of zoning districts that may be established. Section 201 (1) of the Act states: "A local unit of government may provide by zoning ordinance for the regulation of land development and the establishment of one or more districts within its zoning jurisdiction which regulate the use of land and structures to meet the needs of the state's citizens for food, fiber, energy, and other natural resources, places of residence, recreation, industry, trade, service, and other uses of land, to ensure that use of the land is situated in appropriate locations and relationships, to limit the inappropriate overcrowding of land and congestion of population, transportation systems, and other public facilities, to facilitate adequate and efficient provision for transportation systems, sewage disposal, water, energy, education, recreation, and other public service and facility requirements, and to promote public health, safety, and welfare." Section 201 (3) of the Zoning Enabling Act provides for the establishment of zoning districts to address special land use problems or achieve specific land management objectives. It states: "A local unit of government may provide under the zoning ordinance for the regulation of land development and the establishment of districts which apply only to land areas and activities involved in a special program to achieve specific land management objectives and avert or solve specific land use problems, including the regulation of land development and the establishment of districts in areas subject to damage from flooding or beach erosion." This allows for such activities as floodplain management under the National Flood Insurance Program (NFIP) and coastal zone management under the Michigan Natural Resources and Environmental Protection Act (1994 PA 451, as amended). Although the Act specifically mentioned flooding and beach erosion hazards as examples, this provision is certainly flexible enough to address other known hazard areas in a community as long as the regulatory measure is legally defensible and consistently applied. The Michigan Zoning Enabling Act, and especially Section 201 (3), appears to

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provide sufficient flexibility and regulatory framework to allow communities to effectively use comprehensive planning and zoning to reduce their natural hazard risk and vulnerability.

Note: On July 1, 2006, Michigan's three zoning enabling acts (one each for cities and villages, townships, and counties) were officially repealed and combined into one new statute, the Michigan Zoning Enabling Act (2006 PA 110). The new Zoning Enabling Act has many improvements over the former enabling legislation. It is roughly one-third the length of the previous acts, the language is clearer, and the notification process is easier and more consistent. Enactment of the Zoning Enabling Act was the culmination of years of work by many stakeholder groups, including the Michigan Association of Planning, Michigan Townships Association, Michigan Municipal League, Michigan Association of Counties, Michigan Homebuilders Association, Michigan Realtors Association, Michigan Department of Environmental Quality, and Michigan Department of Labor and Economic Growth. Unification and modernization of the three zoning enabling acts was also one of the recommendations of the final report of the Michigan Land Use Leadership Council in August of 2003. (Note: Only counties, cities, villages, and townships that have a zoning ordinance are affected by the new Zoning Enabling Act.) On February 29, 2008, 2006 PA 110 was amended by 2008 PA 12 to make several needed "corrective amendments" to various administrative mechanisms and processes contained in the original act. 2008 PA 12 did not contain any new provisions that would significantly improve hazard risk and vulnerability reduction efforts. At the time of this writing, a bill to unify and amend Michigan's three planning enabling acts (one each for cities and villages, townships, and counties) into a single, coordinated planning act had been presented to Governor Granholm for her signature. This new act, widely supported by various professional and advocacy organizations, would do for planning what the Michigan Zoning Enabling Act (described above) did for zoning. The enactment of a new coordinated planning act was also one of the recommendations contained in the final report of the Michigan Land Use Leadership Council in August 2003. The new act would strengthen the ability of local communities to effectively use comprehensive planning along with zoning and other regulatory tools to reduce natural hazard risk and vulnerability.

(MI-3) Pursuant to 1972 PA 230, adopted November 5, 1974 and amended by 1999 PA 245, all communities in Michigan are subject to the State Construction Code, which establishes general minimum construction standards for buildings and structures in all Michigan municipalities. The State Construction Code is a compilation of the International Residential Code, the International Building Code, the International Mechanical Code, the International Plumbing Code published by the International Code Council, the National Electrical Code published by the National Fire Prevention Association, and the Michigan Uniform Energy Code with amendments, additions, or deletions as the Michigan Department of Labor and Economic Growth determines appropriate. The Code became effective statewide on July 31, 2001. The State Construction Code provides for statewide uniformity of application and implementation of rules governing the construction, use, and occupancy of buildings and structures. (Prior to the 1999 PA 245 amendment, communities had the option of adopting the State Construction Code – which was the National Building Officials and Code Administrators [BOCA] Code with State amendments – or they could adopt any other nationally recognized building code such as the Uniform Building Code [UBC] or the Council of American Building Officials [CABO] Code for one and two family dwellings. Approximately 40% of Michigan communities adopted the State Construction Code and 50% followed the National BOCA Code. The remaining 10% adopted the UBC.) Provisions of the State Construction Code and other building codes are enforced through authorized local building inspection agencies and state inspectors. In Michigan, there are 2,600 registered local inspectors and 80

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state inspectors. In communities where comprehensive planning is not done, the building code is often the only land use regulatory measure available.

(MI-4) The enactment of 2002 PA 628 202 PA 628 amended 1937 PA 306, the Construction of School Buildings Act, which regulates the construction, reconstruction, and remodeling of certain public or private school buildings or additions to such buildings. K-12 schools are now required to adhere to the State Construction Code when constructing, remodeling or reconstructing school buildings. (Prior to 2002 PA 628, K-12 schools were exempted from most construction code and inspection requirements. K-12 schools did not have to adhere to the State Construction Code unless the school district chose to do so. This compromise resulted from hardfought political battles wherein the school districts tried to save the cost of inspections. Architects designed school buildings to code, but builders could build the school without third party inspections. There was every reason to believe, but no guarantee, that school buildings were safe.)

(MI-5) The Land Division Act (1967 PA 288, as amended by 1996 PA 591, 1997 PA 87, and 2004 PA 524) governs the subdivision of land in Michigan. The Act requires that the land being subdivided be suitable for building sites and public improvements, that there be adequate drainage and proper ingress and egress to lots, and that reviews be conducted at the local, county and state levels to ensure that the land being subdivided is suitable for development. The Act also requires conformance with all local planning codes. From a hazard mitigation standpoint, that point is important because it gives the local planning commission the authority to approve subdivision development in accordance with the local comprehensive plan and regulatory standards.

Minnesota

(MN-1) 2007 MN State Statute Chapter 12 Emergency Management Policy Declaration (12.02): It is further declared to be the purpose of this chapter and the policy of the state that all emergency management functions of this state be coordinated to the maximum extent with the comparable functions of the federal government, including its various departments and agencies, of other states and localities, and of private agencies of every type, to the end that the most effective preparations and use may be made of the nation's labor supply, resources, and facilities for dealing with any disaster that may occur.

(MN-2) Governor's Executive Order, Section 1864-HSEM shall have overall responsibility for supporting both local government emergency operations planning and all-hazards mitigation planning. This responsibility includes the development and maintenance of prototype emergency operations plans, mitigation plans and supporting documents, as well as planning requirements guidance.

(MN-3) Minnesota Building Codes and Standards-the Minnesota Department of Labor and Industry, Construction Codes and Licensing Division administers the Minnesota State Building Code - Statutory Authority (16B.59 - 16B.75) that sets construction standards to assure the health, safety, comfort and security of building occupants. One important planning document that comes out of this office is the Disaster Preparedness Manual, A Guidebook for Minnesota Building Officials produced by the Disaster Mitigation Committee of the North Star Chapter. Included in this document are creative mitigation measures that surround building code enforcement. Unfortunately, not all counties have chosen to adopt the state's building code. See Appendix 2 for Minnesota State Building Code map. Of the 855 cities in Minnesota, 405 have adopted the state building code, of the 1791 townships 253 have adopted the code and of the 87 counties, 20 have adopted the building code. Insurance companies do take note

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of communities that do have an adopted and enforced building code and make insurance rate adjustments accordingly.

Mississippi

(MS-1) Mississippi Emergency Management Law (Miss. Code 1972, Annotated. 33-15-7 Et. Seq).: Implemented under the authority of the Mississippi Emergency Management Agency. The Office of Mitigation is responsible for coordinating disaster loss reduction programs, initiatives, and policies throughout the State of Mississippi. Disaster loss reduction measures are carried out through disaster reduction programs, initiatives, and policies through the development of State and local Hazard Mitigation plans and the implementation of strategies identified in the plans. The Office of Mitigation administers the Hazard Mitigation Grant program, the National Flood Insurance Program's Community Assistance Program and Map Modernization program, the Flood Mitigation Assistance Program, and the Pre-Disaster Mitigation program, and Severe Repetitive Loss Program. The Office of Mitigation's Staff has grown from six to thirty personnel. Floodplain Management, Grants and Planning Staff are assigned to all nine districts in the state. Mitigation Bureau Staff have been extensively trained in Benefit Cost Analysis, Grants Management, National Flood Insurance Program, Plan review, CAV, CAX, environmental, project application review, HAZUS and NEMIS Entry.

(MS-2) Miss. Code 1972, Annotated. 65-1-13: Authorizes the Mississippi Department of Transportation- The following is a brief description of the Mississippi Department of Transportation's (MDOT) on-going hazard mitigation capabilities. Construction, reconstruction and maintenance of transportation facilities vital to evacuation, response, and re-entry. This includes but is not limited to seismic retrofitting of bridges, the upgrading of traffic control devices after destruction, construction of transportation facilities to avoid flood prone areas whenever possible, and other precautionary design work – including wetlands mitigation – which reduces risk before, during and after an emergency. Education and communication outreach programs to include information provided to the general public concerning Contraflow, pet evacuation, and general preparedness. Training for MDOT response personnel at all levels for a wide range of natural and manmade hazards. In-house emergency coordination staff increased from four in 2005 to 12 today; this group is MDOT's ESF-1 representative at the State Emergency Operations Center. Maintenance of a Comprehensive Emergency Transportation Response Plan which is updated regularly. Emergency preparedness for a 72-hour window of self-sufficiently after a disaster. This is accomplished through improvements made to emergency supplies, storage facilities, acquiring sufficient fuel reserves, as well as housing, food and water for transportation emergency workers. Improvements in communication capabilities through the purchase of additional satellite radio units to serve as redundant communications backup. In addition, a mobile communications platform and a command/control center have been deployed. Evaluation of standard operating procedures in all areas, but specifically within procurement to enable the agency to function more efficiently and quickly in the purchase of emergency supplies. Provision of remote traffic sensing, which will aid in traffic management during evacuations and re-entries. Development of partnerships with various state, federal and/or local agencies to save lives and reduce future losses. These include: The GIS Coordinating Council in the development of the Mississippi Digital Earth Mapping Initiative. Key emergency response agencies to aid in providing fuel. These agencies include the Mississippi Emergency Management Agency, Mississippi Department of Health, and Wildlife, Fisheries and Parks. Acquiring travel trailers to provide housing accommodations for transportation emergency workers during extended events. Placement of three Mobilization Centers in northwest Mississippi to provide for command/control and serve as a base of operations to support earthquake emergency response activities.

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(MS-3) Miss. Code 1972, Annotated. 19-5-9: Title 19, Chapter 5 authorizes certain counties to adopt, as minimum standards, building codes published by a nationally recognized code group.

(MS-4) Miss Code 1972, Annotated. 21-19-25: Under Title 21, Governing authorities of any municipality are authorized to adopt building, plumbing, electrical, gas, sanitary, and other codes to protect the public health, safety, and welfare.

(MS-5) House Bill 1406-Mississippi Building Code Council: Mississippi does not adopt or enforce a statewide building code for all structures, nor does it mandate a code for residential construction. It is up to local jurisdictions to adopt and enforce building codes. House Bill 1406, passed in 2006, creates the Mississippi Building Code Council. It also requires five coastal counties, Jackson, Harrison, Hancock, Stone, and Pearl River, and the municipalities located there, to enforce all the wind and flood mitigation requirements prescribed by the 2003 International Residential Code and the 2003 International Building Code. The Mississippi Building Codes Council adopted the 2003 International Building Code and 2003 International Residential Code for the state, but does not require local jurisdictions to adopt building codes, but requires that they use the International Codes if they do adopt codes.

(MS-6) Miss Code 1972, Annotated. 17-1-11 et. seq.- Title 17, Chapter 1 permits municipal and county governments to adopt zoning regulations for the purpose of ensuring the most appropriate use of community lands and to provide for the preparation, adoption, amendment, extension, and carrying out of a comprehensive plan for the purpose of bringing about coordinated physical development in accordance with present and future needs. Chapter 1 also authorizes the establishment of local planning commissions to advise municipal and county governments in matters pertaining to physical planning, subdivision of land, zoning ordinances, building set back lines, and enforcement of regulations. Title 17 further authorizes any two or more counties or municipalities to establish regional planning commissions composed of representatives from the participating counties and municipalities. Regional planning commissions are established for the purpose of advising local governments on problems related to acquisition, planning, construction, development, financing, control, use, improvement, and disposition of buildings and other structures, facilities, goods, and services.

No local land use plans are mandated by state law. State law does specify that the city or county legislative body must legally adopt a comprehensive plan to put it into effect. The state also requires that the zoning be based upon and consistent with the legally adopted plan. If a local government chooses to develop and adopt a comprehensive plan, the law does specify a list of elements that must be included, but no natural hazards element is required.

(MS-7) Miss. Code 1972, Annotated. 21-19-23: Local Emergency Management-Municipal governments may enter into reciprocal assistance agreements on the assignment of equipment, supplies, and materials in the event of an emergency or disaster. Each county in Mississippi has a full or part-time emergency management program. As of September 15, 2003, 59 of Mississippi's 82 counties have Emergency Management designated full-time emergency management or civil defense directors. Twenty-three counties have part-time directors. Eighty-two counties have completed comprehensive emergency management plans on file with the Mississippi Emergency Management Agency (MEMA).

(MS-8) Executive Order 985, 2007; Mississippi State Hazard Mitigation Council-Establishes the Mississippi Hazard Mitigation Council. Presents the Council goals, responsibilities, and membership.

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Missouri

(MO-1) RSMo 44.020*:* State Emergency Management Agency created. There is hereby created within the military division of the executive department, office of the adjutant general, the "State Emergency Management Agency," for the general purpose of assisting in coordination of national, state, and local activities related to emergency functions by coordinating response, recovery, planning and mitigation. This agency shall also serve as the statewide coordinator for activities associated with the National Flood Insurance Program.

(MS-2) RSMo 44.032: Emergency powers of governor, uses—Missouri disaster fund, funding, expenditures, procedures, purposes— aid to political subdivisions, when, procedure—expenditures in excess of $1,000, governor to approve. There is hereby established a fund to be known as the "Missouri Disaster Fund," to which the general assembly may appropriate funds and from which funds may be appropriated annually to the state emergency management agency. The funds appropriated shall be expended during a state emergency at the direction of the governor and upon the issuance of an emergency declaration which shall set forth the emergency and shall state that it requires the expenditure of public funds to furnish immediate aid and relief. The director of the state emergency management agency shall administer the fund. Expenditures may be made upon direction of the governor for emergency management, as defined in section 44.010, or to implement the state disaster plans. Expenditures may also be made to meet the matching requirements of state and federal agencies for any applicable assistance programs.

(MS-3) RSMo 44.080: All political subdivisions shall establish a local emergency management organization. Each political subdivision of this state shall establish a local organization for disaster planning in accordance with the state emergency operations plan and program.

(MS-4) RSMo 44.227-237 (Senate Bill 142): **Missouri Seismic Safety Commission:** Commission on seismic safety created. Authorizes creation, duties, and powers of the Missouri Seismic Safety Commission, as well as gives the commission responsibilities to undertake a study to determine the feasibility of establishing a comprehensive program of earthquake hazard reduction to save lives and mitigate damage to property in Missouri. The commission developed a Strategic Plan for Earthquake Safety in Missouri (1997) that identifies objectives and makes recommendations for earthquake mitigation. The commission also sponsors earthquake awareness activities each year, including exhibitions at the St. Louis Science Center and the State Capitol.

(MS-5) RSMo 160.451: Earthquake emergency system to be established for certain school districts. The governing body of each school district which can be expected to experience an intensity of ground shaking equivalent to a Modified Mercalli of VII or above from an earthquake occurring along the New Madrid Fault with a potential magnitude of 7.6 on the Richter Scale shall establish an earthquake emergency procedure system in every school building under its jurisdiction.

(MS-6) RSMo 160.453: Requirements for emergency system—public inspection of system authorized. This earthquake emergency system shall include 1) A school building disaster plan; 2) An emergency exercise to be held at least twice each school year; 3) Protective measures to be taken before, during, and following an earthquake; and 4) A program to ensure that the students and certified and noncertified employees of the school district are aware of, and properly trained in, the earthquake emergency procedure system.

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(MS-7) RSMo 160.455: Distribution to each student certain materials on earthquake safety—duties of school district. At the beginning of each school year, each school district shall distribute to each student materials that have been prepared by the Federal Emergency Management Agency, SEMA, or by agencies that are authorities in the area of earthquake safety and that provide the following objectives: 1) Developing public awareness regarding the causes of earthquakes, the forces and effects of earthquakes, and the need for school and community action in coping with earthquake hazards; 2) Promoting understanding of the impact of earthquakes on natural features and manmade structures; and 3) Explaining what safety measures should be taken by individuals and households prior to, during and following an earthquake.

(MS-8) RSMo 256.173: Cities and counties to be furnished geologic hazard assessment prepared by Division of Geology and Land Survey. The Division of Geology and Land Survey in the Missouri Department of Natural Resources shall provide each county as the information becomes available a geologic hazard assessment and assistance in the use and application of the geologic hazard assessments, which will be made available to the public. The Department of Natural Resources shall provide each recorder of deeds of each county in the state a map showing the downstream area that would be affected in the event of a dam failure.

(MS-9) RSMo 256.175: High seismic risk area data duties of The Missouri Department of Natural Resources shall furnish to SEMA technical data, including soil liquefaction and seismic effects, on structural foundations that are located in a high seismic risk area. If requested by a local government entity, the department shall assist in the establishment of construction standards based on the data provided in this subsection. The Department shall be designated as the lead technical agency in the state to conduct studies concerning the geologic effects of earthquakes.

(MS-10) RSMo 319.200-207: Each city, town, village, or county that can be expected to experience an intensity of ground shaking equivalent to a Modified Mercalli of VII or above from an earthquake occurring along the New Madrid Fault with a potential magnitude of 7.6 on the Richter Scale, shall adopt an ordinance or order requiring that new construction, additions and alterations comply with the standards for seismic design and construction of the building officials and code administrators code or of the uniform building code. Cities and counties found not to comply with the requirements of sections 319.200 to 319.207 shall not be eligible to receive any state aid, assistance, grant, loan or reimbursement until compliance has been proven to the satisfaction of the commissioner of administration.

(MS-11) RSMo 379.975: Insurer to provide information on earthquake insurance for coverage on property located in the New Madrid Seismic Zone, as defined by the United States Geological Survey in Missouri, susceptible to Modified Mercalli intensity VII or above from an earthquake occurring along the New Madrid Fault with a potential magnitude of 7.6 on the Richter scale, the insurer shall provide information to the applicant or policyholder regarding the availability of insurance for loss caused by earthquake.

(MS-12) RSMo 379.978: Every insurance company that insures property for loss caused by earthquake shall prepare and retain a written disaster plan covering earthquakes. This plan shall include specific provisions regarding procedures for handling claims under the insurance company's issued policies or endorsements covering loss or damage from the peril of earthquake.

(MS-13) Executive Order 94-25, 1994 Establishes the Disaster Recovery Partnership to review and design new human services disaster response and recovery delivery methods, establish more rapid and

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complete communications to disaster victims and caregivers, and promote, train, and support local committees.

(MS-14) Executive Order 03-23, 2003 Reaffirms the endeavors of the Disaster Recovery Partnership and ascribes to it the additional functions of a state citizen council.

(MS-15) Executive Order 05-20, 2005 Establishes the Missouri Homeland Security Advisory Council to review and evaluate current state and local homeland security plans and make recommendations for changes to better protect Missourians and to review requests and provide recommendations on the appropriate use of Homeland Security grant funds from the federal government. Creates the Division of Homeland Security within the Department of Public Safety to coordinate activities to promote unity of effort among federal, state, local, private sector, and citizen activities related to emergency preparedness and homeland security.

(MS-16) RSMo 44.023: provides immunity from liability for those working in disaster volunteer programs. SEMA and the state's Executive Department worked together to write the new Catastrophic Event (Earthquake) Annex, which has been added to the State Emergency Operations Plan as Annex Y.

Montana

(MT-1) MCA Title 7 Local Government Allows local governments to construct public buildings, utility services, roads, and bridges. Gives local government the right to adopt their own building codes. Limitation: Does not require local building codes or enforcement.

(MT-2) MCA 10-3 Disaster and Emergency Services - Establishes state and local emergency management organizations and responsibilities. Limitations: Mentions mitigation in a very limited fashion.

(MT-3) MCA 50-60 Building Construction Standards-Authorizes State Building Code**.** Allows for local county, city, or town building codes**.** Limitations-Except for the energy, plumbing, and electrical codes, the State Building Code is not applicable for residential structures less than five dwelling units, unless required by local jurisdictions.

(MT-4) MCA 76-1 Growth Policy -Requires local governments to develop growth policies by October 2006. Growth policies are the steering documents for zoning ordinances and subdivision regulations. Limitations-Does not require the consideration of natural hazards. A bill requiring a strategy for addressing natural hazards failed in 2001. Growth policies are not regulatory and do not have authority to deny land use.

(MT-5) MCA 76-2 Planning and Zoning-Allows local governments to establish and manage zoning districts. Limitations-Does not establish statewide zoning or require it at the local level.

(MT-6) MCA 76-3 Montana Subdivision and Platting Act-Requires local governments develop subdivision regulations and enforcement Establishes policy to ensure subdivisions are in the public interest**.** Limitations-Does not establish statewide standards for hazards.

(MT-7) Title 24, Chapater 301 of the Administrative Rules of Montana (Building Code)-New construction in the Intermountain Seismic Belt is taking place in areas vulnerable to earthquake damage. The State Of Montana has adopted the International Building Code (IBC), 2006 edition and seismic provisions or requirements found in the IBC are what the state requires for commercial buildings built in Montana. Seismic requirements are found throughout the code and are not condensed into a table or

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chart of requirements. Different building types, different occupancies and different uses all have varying degrees of seismic requirements and even different materials utilized in those different buildings and occupancies carry additional or different requirements i.e. wood construction of a police station would have different seismic requirements than a masonry built police station. A building with an occupant load of over 300 people would require additional seismic considerations than if the building held less than 300 (same use, same materials). The staff of architects and engineers at the Montana Department of Labor and *Update to the State of Montana Multi-Hazard Mitigation Plan and Statewide Hazard Assessment Montana DES* 3-61 *August 2007*

Industry, Bureau of Building and Measurement Standards perform plan reviews to ensure designers have included the seismic provisions and requirements found in the building code. The IBC recognizes the differences in seismic activity by evaluating three main parameters; 1) amount of motion – this is a site specific value derived from software using a location's zip code, 2) site class or soil type for a specific building site, and 3) the seismic use group which is the type of building use. These three parameters are analyzed to arrive at a "seismic design category" which the code then provides for specific requirements based on a project's seismic design category label. For example a project located in an area where the ground motion has been determined to be high, the soil type at the site is determined to be such that not much dampening of that motion is likely to occur (not hard rock – silt or loose soil present) and the building is considered an "essential facility" such as a police station or hospital then the seismic design category will calculate out to be such that higher seismic requirements will be placed on that structure. You could have the same motion and the same soil type but have a building that is not essential (could be right across the street from the police station) and the seismic design category would be such that the requirements for seismic design will be lower.

The IBC does not cover single family residences. The State Of Montana has adopted the International Residential Code (IRC), 2006 edition for one and two family residences and townhouses. The State of Montana, Bureau of Building and Measurement Standards does not have jurisdiction over single family residences (they are exempt from the requirements of a building permit by law). Local jurisdictions (cities, counties and towns) can elect to become certified to take on enforcement of single family residences. Currently there are 42 certified jurisdictions including four counties (Table 3.3.2-7) that are certified to enforce building codes; however, they must adopt the same codes and operate under the same process as the State of Montana.

Nebraska

(NE-1) Nebraska RRS §81-829.31 to §81-829.73 (Nebraska Emergency Management Act) The Nebraska Emergency Management Act addresses pre-disaster mitigation, post-disaster mitigation, and development in hazard prone areas. For predisaster mitigation, "the governor shall consider, on a continuing basis, steps that could be taken to prevent or reduce the harmful consequences of disasters, emergencies, and civil defense emergencies" (§81-0829.43). It also provides the governor with the power to make recommendations for mitigation projects. This Act also gives power to NEMA and other state agencies to study and monitor vulnerable areas and then pursue appropriate mitigation actions. Section 81-0829.42 of the Nebraska Emergency Management Act lists appropriate post-disaster mitigation actions such as clearing debris and provides for "other measures as are customarily necessary to furnish adequate relief in cases of disaster, emergency, or civil defense emergency."

(NE-2) Nebraska Regulation on Municipal Zoning §19-901 and County §23-114 The state law regulating land use zoning in first and second class cities and villages (Revised Statute §19-901) allows local

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adoption of zoning regulations after the jurisdiction has done the following: 1.Establish a planning commission; 2. Hold public meetings; 3. Develop a comprehensive development plan; 4. The Municipal Planning Commissions shall prepare and adopt implemental means as a Capital Improvement Program, Subdivision Regulations, Building Codes, and a Zoning Ordinance in cooperation with other Municipal departments, and must invite public comment and advice in their preparation. (Revised Statute §19-929). A County Board has the power to create a Planning Commission, and adopt zoning resolutions. The County Planning Commission shall prepare and adopt as its policy statement a comprehensive development plan, as well as a means of implementation such as a capital improvement program. They must advise the public relating to promulgations of implemental programs (Revised Statute §12-114). The County Planning Commission may establish special districts or zones in those areas subject to seasonal or periodic flooding and such regulation may be applied as will minimize danger to life and property. (Revised Statute §23-114(c)(5)). In both of types of regulations, the municipalities and counties may develop zoning regulations but are not required to. According to the Nebraska League of Municipalities, there is no listing of cities and villages that have adopted zoning regulation. The League did state, however, that most first and second class cities and villages in Nebraska have zoning and building code regulations.

(NE-3) Nebraska RRS §71-6401 to §71-6407 (Building Construction Act): It is the purpose of the Building Construction Act to: (1) Adopt a state building code to govern the construction, reconstruction, alteration, and repair of buildings and other structures within Nebraska; (2) Provide state standards to safeguard life, health, property, and the public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, and maintenance of buildings and structures within this state; and (3) Provide for the use of modern and innovative methods, devices, materials, and techniques in the design and construction of buildings and other structures. 1) There is hereby created the state building code. The Legislature hereby adopts by reference: (a) The International Building Code (IBC), 2000 edition, published by the International Code Council; (b) The International Residential Code (IRC), 2000 edition, published by the International Code Council; and (c) The International Existing Building Code, 2009 Edition, published by the International Code Council. The state building code shall be the building and construction standard within the state and shall be applicable to all buildings and structures owned by the state or any state agency; and in each political subdivision which elects to adopt the state building code or any component or combination of components of the state building code.

Nevada

(NV-1) 239C.010 Chapter of the NRS-is Nevada's Homeland Security legislation which provides for plans to respond to terrorism and related emergencies and also statewide preparations for acts of cyber-terrorism, environmental catastrophes and other related incidents.

(NV-2) 268.012 Chapter 268 of the Nevada Revised Statutes (NRS) gives to the cities of the State the authority to adopt uniform building, plumbing and electrical codes which contain mitigation considerations.

(NV-3) 278.580 Chapter of the NRS Mandates that any governing body shall amend its building codes to include seismic provisions of the International Building Code and the standards for the investigation of hazards relating to seismic activity including, without limitation, potential surface ruptures and liquefaction.

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(NV-4) 278.160.1 (n) of the NRS: Requires master plans adopted by planning commissions and governing bodies to incorporate a Seismic Safety Plan that consists of an identification and appraisal of seismic hazards such as susceptibility to surface ruptures from faulting to ground shaking or to ground failures.

(NV-5) 341.143 Chapter of the NRS-Pertains to the construction of state facilities, the Legislature has also mandated the state Public Works Board to adopt regulations governing the design and construction of buildings or other projects of the State and to adopt into those regulations the seismic provisions of the International Building Code and the standards for the investigation of hazards relating to seismic activity, including, without limitation, potential surface ruptures and liquefaction.

(NV-6) 353.2735 Chapter of the NRS-Provides for the Disaster Relief Account. The account is used to stabilize the operation of the State Government, including local jurisdictions, from an emergency/disaster.

(NV-7) Section 414.040 of the Nevada Revised Statutes- the Chief of the Division of Emergency Management has the authority and power to assist in the development of an integrated process for the mitigation of, response to and recovery of emergencies or disasters through the various governmental agencies, business and industry, volunteer organizations and any other interested parties.

(NV-8) 414.060(3)b of NRS- "(b) Prepare a comprehensive state emergency management plan and develop a program for emergency management in this state to be integrated into and coordinated with the plans of the Federal Government and of other states for emergency management to the fullest possible extent, and coordinate the preparation of plans and programs for emergency management by the political subdivisions of this state to be integrated into and coordinated with the plan and program of this state to the fullest possible extent."

(NV-9) 414.135 Chapter of NRS-This statute describes the Emergency Assistance Subaccount. This subaccount is to provide supplemental emergency assistance to this state or to its local governments impacted by an emergency/disaster.

(NV-10) 461.170 Chapter of NRS- The Nevada Legislature has adopted by statute, for the purposes of manufactured homes, the Uniform Housing Code, the Uniform Building Code, the Uniform Plumbing Code, the Uniform Mechanical Code; the National Electrical Code, the Uniform Building Code, Dangerous Building, the Uniform Building Code Standards and the American National Standards Institute Standard No. A117.1.

New Hampshire

(NH-1) NH Revised Statutes Annotated (RSA), 21-P:37, Emergency Management Powers Conferred, authorizes the establishment of a "comprehensive plan and program for the emergency management of this state, such plan and program to be integrated into and coordinated with the emergency management plans of the federal government and of other states to the greatest possible extent, and to coordinate the preparation of plans and programs for emergency management by the political subdivisions of this state and private agencies, such plans to be integrated into and coordinated with the emergency management plan and program of this state to the greatest possible extent."

(NH-2) NH RSA 674:2 states that a Master Plan adopted under this statute may include a "natural hazards section which documents the physical characteristics, severity, frequency, and extent of any potential natural hazards to the community. It should identify those elements of the built environment

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at risk from natural hazards as well as extent of current and future vulnerability that may result from current zoning and development policies."

(NH-3) NH RSA 9-A, State Development Plan which states, "There shall be a comprehensive state development plan which establishes state policy on development related issues….[including] A natural hazards section which identifies actions to improve the ability of the state to minimize damages from future disasters that affect land and property subject to such disasters. Homeland Security and Emergency Management works closely with the Regional Planning Commissions and the Office of Energy and Planning to ensure that these state initiatives are carried out to the local communities and their local mitigation plan.

(NH-4) NH RSA 155-A (State Building Code)-The State of New Hampshire has a State Building Code, which includes the International Building Code (IBC) 2000, the International Plumbing Code 2000, the International Mechanical Code 2000, the International Energy Conservation Code 2000, as published by the International Code Council, and the National Electric Code 1999. The IBC 2000 building code specifies a new generation of natural hazards design provisions. These building standard improvements incorporate the new national seismic risk maps, soil classifications and design methodology. They supercede the current obsolete and unsafe Standard Building Code provisions and are backed up by a new earthquake engineering technology base.

New Jersey

(NJ-1) Executive Order 101, 1980 Transfer of Emergency Management to the NJ State Police - Established an Office of Emergency Management in the Division of State Police, Department of Law and Public Safety. The Office of Emergency Management shall be under the supervision, direction and control of the State Director of Emergency Management

(NJ-2) State Hazard Mitigation Team (SHMT), which was established by **Governor's Executive Order #115** (Florio), is the means that NJOEM uses to coordinate its mitigation activities with other State agencies. Since the first version of the NJ All Hazard Mitigation Plan (Plan) was approved in April, 2005, members of the SHMT have been meeting quarterly to assess mitigation projects, prioritize applications for submittal, and determine if there are any changes to the Plan.

(NJ-3) State Planning Act of 1985, N.J.S.A. 52:18A-196 et seq., empowered the State Planning Commission with the responsibility to prepare, revise, and readopt the New Jersey State Development and Redevelopment Plan (State Plan) every three years. The State Plan was adopted using the process of Cross-acceptance, a legislatively mandated process whereby planning policies are reviewed by government entities at all levels and the public to assess their consistency with each other and with the State Plan. The State Plan was developed for the purpose of promoting cooperative planning among municipalities, counties, regional entities and the State, to change the way land use decisions have been made in our State over the past 30 years, and to promote sustainable economic growth in a way that sensibly balances the need to protect open space. Thanks to years of work evaluating the goals, policies and strategies of the State Plan, we now have a clear framework for what the landscape of New Jersey should look like in 2025.

(NJ-4) New Jersey Administrative Code, Title 5 – Dept. of Community Affairs (Building Codes)-The Department of Community Affairs has adopted building codes that address different hazards that affect New Jersey. The State has adopted the 2000 International Building Code (IBC) and the 2000 International Residential Code (IRC) modified to comply with State laws. These address the construction

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of new buildings and their relationship to weather-related and geological hazards. (**Earthquakes** The current Building Subcode provides requirements for soils investigations before a building is designed that addresses these issues).

(NJ-5) New Jersey Civilian Defense and Disaster Control Act-The purpose of this act is to provide for the health, safety and welfare of the people of the State of New Jersey and to aid in the prevention of damage to and the destruction of property during any emergency as herein defined by prescribing a course of conduct for the civilian population of this State during such emergency and by centralizing control of all civilian activities having to do with such emergency under the Governor and for that purpose to give to the Governor control over such resources of the State Government and of each and every political subdivision thereof as may be necessary to cope with any condition that shall arise out of such emergency and to invest the Governor with all other power convenient or necessary to effectuate such purpose.

New Mexico

(NM-1) 12-11-23 to -25, Emergency Powers Code, 2005, as amended: provides state funds to be expended for disaster relief for any disaster declared by the Governor that is beyond local control. Such funds may also be used as a match for federal disaster relief grants;

(NM-2) 12-10-2 to -5, NMSA 1978 as amended: The State Civil Emergency Preparedness Act. This Act establishes the basic structure of Emergency Management as a state agency and defines the role of local government in emergency preparedness.

(NM-3) New Mexico Administrative Code Title 14 (Housing and Construction) -All new buildings in the state are required to meet or exceed the standards in the International Building Code or the International Residential building code. This code requires a certain level of protection be installed in new buildings, to protect against wind, snow loads, fires, earthquakes and other natural hazards. In addition, the state subscribes to and enforces the International Building Code, which requires that certain earthquake and wind-loading standards be met for specified categories of structures. Each county is responsible for monitoring its own development; the state does not have oversight on this.

New York

(NY-1) In 1979, **State Executive Law, Article 2-B** was signed into law and required the development of a State Disaster Preparedness Plan. Under Article 2-B, the plan was redesigned to address all-hazards emergency preparedness, response, and recovery. This new approach resulted in the development of the New York State Comprehensive Emergency Management Plan (CEMP). Section 21 of State Executive Law, Article 2-B identifies the State Disaster Preparedness Commission (DPC) and States that the DPC will coordinate the State's emergency management program. The section also identifies 23 State agencies or offices and one volunteer organization, the American Red Cross, which shall participate in emergency management activities. Section 22 of Article 2-B identifies the roles and responsibilities of the Disaster Preparedness Commission, of which includes the preparation of State disaster plans; directing State disaster operations and coordinating those with Local government operations; and coordinating with Federal, State, and private recovery efforts. Further, the State Emergency Management Office has been authorized to serve as the administrative arm to the Disaster Preparedness Commission. SEMO utilizes the authority in Article 2-B to help set the direction in a coordinated, stratified, and cohesive Statewide emergency preparedness effort. At all levels of the

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organization, SEMO meets frequently with various agencies and organizations to address a variety of all-hazards based preparedness, response and recovery concepts, policies, plans, and procedures.

(NY-2) Building Codes-As implemented by New York State Consolidated Laws, **Executive Law, Article 18, "The New York State Uniform Fire Prevention and Building Code Act**" as amended, the State Uniform Fire Prevention and Building Code contains minimum construction standards that must be met by all construction that occurs within communities in New York State (save for certain exempt categories, such as Federal).

(NY-3) Title 19 of the New York Code of Rules and Regulations, Part 444 (19 NYCRR Part 444) defines the Minimum Standards for Administration and Enforcement of the Uniform Code. Each municipality within New York State, with the previously noted exception of the City of New York, follows these regulations to establish specific requirements for issuing construction permits and certificates of occupancy, building and fire safety inspections, training of code compliance officials and response to complaints of code violations. Municipalities may decline to enforce the code within its boundaries, in which case, enforcement passes to the county within which the municipality is located. Likewise, counties may also decline to enforce the code and enforcement then passes to the State of New York through the Department of State. Title 19 NYCRR, Part 448 defines similar standards to Part 444 for the Administration and Enforcement of the Uniform Code for State-owned facilities. Specific State agencies with responsibility for design, construction, and renovation of State-owned facilities issue necessary permits, conduct inspections, and respond to complaints in similar fashion to the requirements for Municipalities.

North Carolina

(NC-1) North Carolina Emergency Management Act (N.C.G.S. 166A) – Administered by the North Carolina Department of Crime Control and Public Safety (CC&PS), sets forth the authority and responsibilities of the Governor, state agencies, and local governments in the prevention and mitigation of, preparation for, response to, and recovery from natural or man-made disasters or hostile military or paramilitary action. As part of its duties, the Department of Crime Control and Public Safety serves as North Carolina's Office of Homeland Security. The Department is currently spearheading efforts to strengthen the State's terrorism defenses and response capabilities. The following Divisions within the Department of Crime Control and Public Safety are described below: North Carolina National Guard, State Highway Patrol, Civil Air Patrol, and the Division of Emergency Management. The North Carolina Emergency Response Commission and the State Emergency Response Team are also described below. The North Carolina Division of Emergency Management (NCDEM) was created by the Emergency Management Act of 1977 (N.C.G.S. 166-A), and is responsible for protecting the people of North Carolina from the effects of disasters, natural and manmade. NCDEM was reorganized in 1997 following Hurricane Fran into functional units, using the "Incident Command System" (ICS), the national model for managing emergency operations. This organizational structure mirrors the local incident command structure and the federal Emergency Response Team structure, thus streamlining and simplifying intergovernmental coordination.

(NC-2) Senate Bill 300: An Act to Amend the Laws Regarding Emergency Management as Recommended by the Legislative Disaster Response and Recovery Commission. Among other provisions, this bill requires that local governments have an approved hazard mitigation plan in order to receive State public assistance funds (effective for State-declared disasters after November 1, 2004). Local governments are also required to participate in the National Flood Insurance Program (NFIP) in

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order to receive public assistance for damage related to flooding. This legislation clearly indicates that the General Assembly realizes the critical need to plan ahead for future hazard events at the local level.

(NC-3) N.C.G.S. Ch. 160A, Art. 19, Part 5, and Ch. 153A Art. 18, Part 4-Local governments in North Carolina are empowered to issue building permits and to carry out building inspections. The North Carolina General Statutes authorize cities and counties to create an inspection department, and enumerates its duties and responsibilities, which include enforcing State and local laws relating to the construction of buildings, installation of plumbing, electrical, and heating systems; building maintenance; and related matters. Some smaller incorporated areas in the state rely on the county inspections department to provide building code enforcement services.

(NC-4) ***State Emergency Response Commission (SERC)*****- By Executive Order No. 125,** Governor Hunt created the North Carolina Emergency Response Commission**.** The NC Division of Emergency Management of the Department of Crime Control and Public Safety provides administrative support and staff to the State Emergency Response Commission (SERC). The Commission was created by Executive Order No. 125 in 1997, and consists of Division Heads of several state government departments. SERC's goals are to provide a forum for local, state and federal response agencies to coordinate activities, serve as a policy development/recommendation organization to address concerns of the response community and to serve as an advisory body to the Governor and the Secretary of Crime Control and Public Safety on issues of risk assessment, prevention, preparedness and mitigation strategies associated with the emergency response function.

(NC-5) North Carolina General Statutes §143-136 Article 9 (Building Code Council and State Building Code)-North Carolina has adopted a mandatory State-wide building code. Codes are based on the most current and up-to-date model code developed by the International Code Council (ICC), with amendments for North Carolina. The North Carolina Code is reviewed annually by the Building Code Council, whose members are appointed by the Governor. Amendments to the Code are made as new requirements and materials are introduced. Economic impact statements are prepared with each proposed change so that the Council and the public are made aware of the economic impact that code changes may produce. North Carolina does not allow local governments to make any amendments to the State mandated Building Code, except by special act of the Legislature. The North Carolina State Building Code is grounded in the State's police powers, which allow regulation of activities and property to preserve or promote public health, safety and welfare. The Codes operate as performance standards to regulate, among other things, structural integrity, fire resistance and construction materials. They include design provisions to reduce damages from multiple natural hazards such as high winds, earthquakes and floods. The Codes contain maps indicating the various wind and seismic zones. The maps are based on the maps in ASCE (American Society of Civil Engineers) 7-98. (On September 10, 2002, the Building Code Council approved a wind-borne debris region that extends 1,500 feet from the Atlantic Ocean; implemented January 1, 2004). Coverage of the North Carolina Code includes the following occupancies: 1 and 2 family dwellings; multi-family dwellings; commercial buildings (low and high-rise); industrial buildings; local and state-owned buildings; schools; hospitals; hotels and motels; and auditoriums. The North Carolina Code does not apply to farm buildings. The primary application of the code is to regulate new or proposed construction, but it also applies to reconstruction, rehabilitation and alterations to existing buildings.

(NC-6) Executive Order No. 25 The Executive Order proclaims the State of North Carolina as a "*Showcase State for Natural Disaster Resistance and Resilience.*" Although severely under-funded to carry out its full program, Blue Sky is actively pursuing the initiatives enumerated in Executive Order No.

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25, with a major focus on motivating the private sector through market-driven incentives to engage in structural and preventive mitigation strategies.

North Dakota

Note: N. Dakota Hazard Mitigation Plan States: Earthquake hazard mitigation is excluded or minimized in Plan due to the following:

- Earthquake tremors have been felt in North Dakota, but none have exceeded intensity IV on

the Modified Mercalli Scale.

- North Dakota does not have a history of any significant earthquake damages.
- HAZUS runs indicate little, if any, damages from earthquakes in the state.
- North Dakota does not have a history of any declared state or federal earthquake disasters.
- Discussion at a statewide stakeholder meeting regarding the earthquake hazard, including North Dakota Geological Survey representation, led to consensus for excluding the hazard from the plan at this time.

(ND-1) Disaster Act of 1985 (*NDCC 37-17.1)*-Establishes the Department of Emergency Services and its authorities and responsibilities, including mitigation. Has a stated purpose to reduce vulnerability of people and communities of this state to damage, injury, and loss of life and property resulting from natural or manmade disasters or emergencies, threats to homeland security, or hostile military or paramilitary action- NDCC 37-17.1-11 specifically covers disaster or emergency mitigation.

(ND-2) State Building Code (*NDCC 54-21.3)*-Establishes a state building code and an advisory committee. Establishes the North Dakota Manufactured Home Installation Program that inspects manufactured homes to ensure they are installed property. The building code relies on individual jurisdictions to adopt and enforce the code.

(ND-3) Municipal Master Plans and Planning Commissions-*(NDCC 40-48)*-Authorizes master plans and subdivision regulations by the municipalities. In the preparation of the master plan, the planning commission shall make careful and comprehensive surveys and studies of present conditions and future growth. Does not require that subdivision regulations provide for public safety.

(ND-4) Regional Planning and Zoning Commissions *(NDCC 11-35)*-Authorizes the formation of Regional Planning and Zoning Commissions. Requires coordination between multiple jurisdictions.

(ND-5) Regional Planning Councils (*NDCC 54-40.1)* Authorizes regional planning councils. - Requires coordination between multiple jurisdictions.

(ND-6) County Zoning *(NDCC 11-33)*-Authorizes county governments to regulate and restrict the location of structures in the county. Townships and cities may have their own zoning regulations or relinquish powers to the county. The adoption and enforcement of zoning is the responsibility of the county.

(ND-7) City Zoning (*NDCC 40-47)* Authorizes city governments to regulate and restrict the location of structures in the city and in some cases immediately surrounding. The adoption and enforcement of zoning is the responsibility of the city.

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(ND-8) Subdivision Regulation (*NDCC 11-33.2)*- Authorizes county governments to regulate and restrict the subdivision of land. Lists provisions that may be included in the subdivision regulations. Establishes parameters through which the regulations can be managed and enforced.

Ohio

(OH-1) Chapter 5502.22 et seq., ORC – State / Local Emergency Management Agencies-The Chapter provides for a State EMA (which includes the Mitigation Branch), and authorizes countywide (5502.26), regional (5502.27), or local emergency management authorities (5502.271), requiring an emergency management director or coordinator and an Emergency Operations Plan for each county. The law also establishes the legal protection and authority of the EMA to work in times of a disaster. The Ohio EMA is the central point of coordination within the state for response and recovery to disasters. The Mitigation Branch of the Ohio EMA is responsible for management of FEMA mitigation program activities for the state (except for the ODNR–DOW, which is the state coordinating entity for the NFIP – see below). The Ohio EMA Mitigation Branch administers pre- and post-disaster HMGP, FMA, PDM, SRL and RFC grant programs, including project ranking, implementation, technical assistance, and monitoring. The Mitigation Branch staff coordinates with State agencies to incorporate mitigation techniques into their everyday functions and to provide assistance with project development.

(OH-2) Title XXXVII Health-Safety-Morals, ORC -Ohio Basic Building Code (OBBC)-The Board of Building Standards is comprised of 10 members appointed by the Governor, with the advice and consent of the Senate. The board provides uniform standards and requirements for construction and materials to make buildings safe and sanitary for their intended use and occupancy. This refers to any building that may be used as a place of resort, assembly, education, entertainment, lodging, dwelling, trade, manufacture, repair, storage, traffic or occupancy by the public, and all other buildings or parts and appurtenances thereof erected within the state. The Ohio Department of Commerce, Division of Industrial Compliance ensures compliance with and enforcement of OBBC for industrial facilities. The Board emphasizes the importance of mitigation techniques. In 1995, the International Basic Building Code was implemented and that date is used as a marker for NFIP determinations. Homes built pre-1995 were not required to meet the same standards as those after the code's inception, and are more hazardprone. The code includes provisions for several mitigation initiatives, such as flood damage reduction, compliance with established building standards and protection of existing buildings from future hazard events.

(OH-3) Standard State Zoning Enabling Act (SZEA) of 1922-Enables Comprehensive planning and zoning, however, the Act is criticized because it does not define 'comprehensive plan'. Neither municipal zoning enabling authority nor county/township zoning enabling authority in the ORC, Chapter 303 and 519 defines what constitutes a comprehensive or master plan. Ohio statutes do not require a comprehensive planning process prior to the enactment of a zoning ordinance or resolution, although county and township enabling statutes specify the Board of County Commissioners or the Board of Township Trustees may regulate "...in accordance with a comprehensive plan..." If a plan exists, it may support zoning regulations provided it is compiled following significant public participation and is current. In Ohio, state statutes enabling planning are permissive and not mandatory. Failure to plan does not necessarily invalidate zoning regulations.

The relationship between wise land use planning and the reduction of a community's exposure, risk, and vulnerability to hazards is clear. Experience has shown that those communities that carefully plan the location, type, and structural requirements of development to avoid (to the extent possible) hazard areas and vulnerable structures suffer much less disaster-related damage and impact than do

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communities that don't carefully plan for development. The benefits of wise land use and development planning, from a hazard mitigation standpoint, include: less disruption to a community's economic, social, and physical structure; less impact on the community's tax base; less impact on the provision of essential services; and less financial impact in terms of local participation in disaster program cost sharing.

In addition, communities that are more prone to disaster damage may be looked upon less favorably by potential business enterprises as a safe, secure place in which to conduct business. Wise land use planning has very practical benefits for all communities. Two ways to incorporate hazard mitigation planning into comprehensive planning is to: 1) have a hazard mitigation element in the comprehensive plan, or 2) incorporate hazard mitigation concepts, strategies, and policies into existing elements of the comprehensive plan.

Oklahoma

(OK-1) Title 63 Oklahoma Statutes: Oklahoma Emergency Management Act requires each county to have an Emergency Manager and an Emergency Management Program. Each city with population over 10,000 must have the same or adopt the county program. Responsible for all aspects of emergency management in their jurisdiction including: conducting a hazard analysis detailing risks and vulnerabilities, annually updating the existing all-hazard Emergency Operations Plan (EOP), conducting and arranging for necessary training of all relevant personnel, conducting annual exercises to evaluate the plan, managing resources, determining shortfalls in equipment, personnel and training, revising the EOP as necessary, establishing and maintaining an office of emergency management, communications, warnings, conducting or supervising damage assessment and other pre and post-disaster-related duties. Emergency Management Program must carry out the four phases: Response, Recovery, Preparedness and Mitigation.

The State of Oklahoma currently has 347 local Emergency Managers, 77 of these being county or city/county. In carrying out the provisions of this act, each political subdivision, in which any disaster as described in Section 683.3 of this title occurs, shall have the authority to declare a local emergency and the power to enter into contracts and incur obligations necessary to combat such disaster, protecting the health and safety of persons and property, and providing emergency assistance to the victims of such disaster. Each political subdivision is authorized to exercise the powers vested under this section in the light of the exigencies of the extreme emergency situation without regard to time consuming procedures and formalities prescribed by law (excepting mandatory Constitutional requirements) pertaining to the performance of public work, entering into contracts, the incurring of obligations, the employment of temporary workers, the rental of equipment, the purchase of supplies and materials, and the appropriation and expenditure of public funds.

(OK-2) Oklahoma's State Hazard Mitigation Team was established by state law, House Bill #1841, on March 9, 1999. Although it receives no direct funding support, it can tap the Emergency Fund for Public Infrastructure. This existing committee was used to form the base of the State Hazard Mitigation Planning Committee, (SHMPC) and to oversee the planning effort. The Committee consists of the following team members from 21 different departments and agencies of the state and federal governments plus private non-profit. These professionals, active in disaster planning, response, and mitigation interact with Oklahoma Emergency Management and each other on a daily basis and provided critical input in the development of the plan. The members of the team provided expertise and perspective to the planning process, including state and local emergency management, natural hazards,

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land-use planning, building codes, transportation, and infrastructure. They further identified potential vulnerable facilities, recommended goals, objectives, mitigation strategies and priorities for actions and wrote agency specific descriptions of their coordination with the state and their available resources, including how their programs were implemented.

(OK-3) Title 74 Oklahoma Statutes State Government (Building Code)-Oklahoma added the International Building Code on November 1, 2001 to the list of approved codes. (BOCA National Building Code, as last revised, the Southern Standard Building Code Congress International (SBCCI), the Uniform Building Code are still acceptable).

Oregon

(OR-1) Oregon Revised Statutes 401.025-.335 (Emergency Management and Services): Establishes Oregon Office of Emergency Management and describes agency responsibilities.

(OR-2) Oregon Revised Statutes 516: Added natural hazard mitigation to the enabling statute for the Department of Geology and Mineral Industries.

(OR-3) Oregon Revised Statutes 336.071: Requirement for earthquake education and tsunami drills to be conducted in public schools.

(OR-4) Oregon Revised Statutes 455.448: Provisions for entry and inspection of buildings damaged by earthquakes.

(OR-5) Oregon Revised Statutes Chapter 455: Building Code: All buildings in Oregon must conform to the state's codes, which influences the way buildings are constructed with respect to seismic risk, wind, snow, wildfire, and flood hazards. **Oregon State Building Codes (Seismic)**: The One and Two Family Dwelling Code and the Structural Specialty Code (both included in the State Building Code) contain maps identifying the various seismic zones for Oregon, as described in Section 2 of this guide. The Structural Specialty Code is based on the 1997 edition of the Uniform Building Code published by the International Conference of Building Officials and amended by the state of Oregon. The Uniform Building Code contains specific regulations for development within seismic zones. Within these standards are six levels of design and engineering specifications that are applied to areas according to the expected degree of ground motion and site conditions that a given area could experience during an earthquake (ORS 455.447).

The Structural Code requires a site-specific seismic hazard report for projects including essential facilities such as hospitals, fire and police stations, emergency response facilities, and special occupancy structures, such as large schools and prisons. The seismic hazard report required by the Structural Code for essential facilities and special occupancy structures must take into consideration factors such as the seismic zone, soil characteristics including amplification and liquefaction potential, any known faults, and potential landslides. The findings of the seismic hazard report must be considered in the design of the building. The Dwelling Code simply incorporates prescriptive requirements for foundation reinforcement and framing connections based on the applicable seismic zone for the area. The cost of these requirements is rarely more than a small percentage of the overall cost for a new building.

The requirements for existing buildings vary depending on the type and size of the alteration and whether there is a change in the use of the building to house a more hazardous use. Oregon State Building Codes recognize the difficulty of meeting new construction standards in existing buildings and

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allow some exception to the general seismic standards. Upgrading existing buildings to resist earthquake forces is more expensive than meeting code requirements for new construction. State code only requires seismic up-grades when there is significant structural alteration to the building or where there is a change in use that puts building occupants and the community at a greater risk. Your local building official is responsible for enforcing these codes. Although there is no statewide building code for substandard structures, local communities have the option of adopting one to mitigate hazards in existing buildings. The state has adopted regulations to abate buildings damaged by an earthquake in Oregon Administrative Rules (OAR) 918-470. Oregon Revised Statutes (ORS) 455.020 and 455.390-400 also allow municipalities to create local programs to require seismic retrofitting of existing buildings within their communities. The building codes do not regulate public utilities and facilities constructed in public right-of-ways, such as bridges that are regulated by the Department of Transportation.
For more information on state building codes contact the Oregon Department of Consumer and Business Services – Building Codes Division. The Building Codes Division of Oregon's Department of Consumer and Business Services is responsible for administering statewide building codes. Its responsibilities include adoption of statewide construction standards that help create disaster-resistant buildings, particularly for flood, wildfire, wind, foundation stability, and seismic hazards. Information about wildfire-related building codes is found through this department.

(OR-6) Oregon Revised Statutes 401.337 Oregon Seismic Safety Policy Advisory Commission: OSSPAC is a state advisory commission created in February 1990 through an executive order from Governor Neil Goldschmidt and established in statute by the 1991 Oregon Legislature (ORS 401.337). It is made up of 18 members with interests in earthquake safety: Building Codes Division, Oregon Emergency Management, Department of Geology and Mineral Industries, Department of Land Conservation and Development, Oregon Department of Transportation, two representatives from the Oregon Legislature, one local government representative, one member from education, three from the general public and six members from affected industries, such as homebuilders and banking industries. The purpose of the work of OSSPAC is to reduce exposure to Oregon's earthquake hazards by: developing and influencing policy at the federal, state, and local government levels; facilitating improved public understanding and encouraging identification of earthquake risk; and supporting research and special studies, appropriate mitigation and response and recovery.

(OR-7) Oregon Senate Bill 96 (1991) Seismic Hazard Investigation-Requires site-specific seismic hazard investigations before the construction of essential facilities, hazardous facilities, major structures, and special-occupancy structures (e.g., hospitals, schools, utilities and public works, police and fire stations). These requirements are adopted into the *State Building Code*. The law also provides for the installation of strong-motion sensors in selected major buildings and mandates that school officials in all public schools lead students and staff in earthquake drills (ORS 455.447 and 336.071).

(OR-8) Senate Bill 1057 (1995)-Created a task force to evaluate the risks impacting existing buildings and make recommendations to the 1997 Oregon Legislative Assembly.

(OR-9) Oregon House Bill 3144 (1999)-Created a new category of engineering license in Oregon, structural engineer for the design of significant structures. The legislation specifically required engineering for buildings housing hazardous occupancies, special occupancy structures as defined in ORS 455.447, essential facilities greater than 4000 square feet and 20 feet in height, and irregular structures as defined by the *State Building Code*, to be performed by a structural engineer. The legislation did not amend the architects' law allowing them to continue to design these structures.

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(OR-10) Oregon Senate Bill 13 (2001) Seismic Event Preparation: Requires state and local agencies to hold annual drills instructing employees on earthquake emergency procedures. Requires employers with 250 or more full time employees to hold annual drills instructing employees on earthquake emergency procedures. Requires Oregon Emergency Management to adopt rules governing required earthquake emergency drills. Implement mandatory earthquake drills for state agencies. "Drop, cover, and hold" or other protective action is critical in reducing injury and loss of life in the workplace and home during an earthquake. The more people practice the drill, the better they will respond to a real event. Voluntary drills will never be enough. State agencies are setting an example by conducting a drill annually. Requires state and local agencies, and private sector employers with 250 or more employees to hold annual drills instructing employees on earthquake emergency procedures.

(OR-11) Oregon Senate Bill 14 (2001) Seismic Surveys for School Buildings: Requires that the State Board of Education examine buildings used for both instructional and non-instructional activities, including libraries, auditoriums, and dining facilities, and that DOGAMI use the surveys to make an initial evaluation of each building in order to determine which buildings are in most need of additional analysis. Following the identification of high-risk buildings and additional analysis, high-risk buildings must be rehabilitated by January 1, 2032, subject to available funding. Senate Joint Resolutions 21 and 22 are bond measures (November 2002 election) which would provide funding to implement this proposed action. Subject to the provision of funding, the Oregon Department of Education and Oregon University System are to conduct seismic surveys of buildings that have a capacity of 250 or more and are routinely used for student activities. Requires the surveys to be completed by January 1, 2007, and provides that the surveys be conducted in accordance with FEMA publication, *Rapid Visual Screening of Buildings for Potential Seismic Hazards* (FEMA-154). Requires State Board of Education to examine buildings used for both instructional and non-instructional activities, including libraries, auditoriums, and dining facilities. It requires DOGAMI to use the surveys to make an initial evaluation of each building in order to determine which buildings are in most need of additional analysis. Following the identification of high-risk buildings and additional analysis, high-risk buildings must be rehabilitated by January 1, 2032, subject to available funding pursuant to Senate Joint Resolutions 21 and 22.

(OR-12) Oregon Senate Bill 15 (2001)Seismic Surveys for Hospital Buildings: Requires Oregon Health Division, subject to provision of funding from gifts, grants, and donations, to provide for seismic safety surveys of certain hospital buildings. Subject to available funding from gifts, grants, and donations, requires seismic safety surveys of fire stations and law enforcement facilities. Requires fire departments or districts, law enforcement agencies, and certain hospital facilities, after consultation with DOGAMI, to conduct additional seismic safety evaluations if fire department, fire districts, law enforcement agency or hospital facility considers further evaluations to be necessary. Requires entity using building to develop plan for seismic rehabilitation or other actions to reduce seismic risk for evaluated buildings that are found to pose undue risk. Requires rehabilitation or other actions to be completed by January 1, 2022. Provides that evaluations, plans and completion of rehabilitation or other actions to reduce seismic risk are required only if Legislative Assembly provides funding pursuant to Senate Joint Resolutions 21 and 22. Develop a plan to rehabilitate to operational readiness in the event of an earthquake essential hospital buildings, fire, and police stations that pose a threat to occupant safety. Senate Bill 15 of the 2001 Legislative Session requires that the Oregon Health Division, subject to provision of funding from gifts, grants and donations develop a plan for the seismic rehabilitation or other actions to reduce seismic risk for hospitals. Fire and police stations, which pose undue risk, will be identified through the efforts of one or more other agencies. It further requires that rehabilitation or

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other actions to be completed by January 1, 2022. SJR 21 and 22 are bond measures (November 2002 election) which would provide funding to implement this proposed action.

(OR-13) Oregon Senate Bill 2 (2005) Statewide seismic needs assessment for schools and emergency facilities: Directed Department of Geology and Mineral Industries (DOGAMI), in consultation with project partners, to develop a Statewide seismic needs assessment that included seismic safety surveys of K-12 public school buildings, community college buildings with a capacity of 250 or more persons, hospital buildings with acute inpatient care facilities, fire stations, police stations, sheriffs' offices and other law enforcement agency buildings. The Statewide needs assessment consisted of rapid visual screenings (RVS) of these buildings; results from the assessment can be viewed on DOGAMI's website at www.oregongeology.com, and within each of the State's eight Regional Profiles and Natural Hazard Risk Assessments.

(OR-15) Senate Bill 3 (2005) Seismic earthquake rehabilitation grant program: Develop a grant program for seismic rehabilitation of eligible buildings as determined by Seismic Needs Program administrators .

(OR-15) 2005 Senate Bill 4&5 State bond authorization: Allows the State Treasury to sell Government Obligation Bonds to fund the Seismic Earthquake Rehabilitation Grant Program (Senate Bill 3-2005)

(OR-16) The Oregon Land Use Planning Act (ORS 197): Requires all of Oregon's cities and counties to have comprehensive land use programs. Those local land use programs must be in compliance with state standards known as the Statewide Planning Goals (OAR 660-015). Land use decisions are then made at the local level in conformance with the local comprehensive land use programs approved by the state as meeting the Goals.

(OR-17) Oregon Administrative Rule 345-022-0020-Energy Facility Siting Council: The Energy Facility Siting Council reviews proposed energy facilities for seismic vulnerability through its structural standard, Oregon Administrative Rule (OAR) 345-022-0020. This standard is a safety standard rather than a reliability standard. It ensures that structural failure at an energy facility will not endanger workers or the public. It does not require that energy facilities be proven to remain operable in a seismic event because the Council assumes that key safety facilities such as hospitals will have backup electricity. The standard requires that: The applicant, through appropriate site-specific study, has adequately characterized the site as to appropriate seismic design category and expected ground motion and ground failure, taking into account amplification during the maximum credible and maximum probable seismic events; The applicant can design, engineer, and construct the facility to avoid dangers to human safety presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events (as used in the rule, "seismic hazard" includes ground shaking, landslide, liquefaction, lateral spreading, tsunami inundation, fault displacement, and subsidence); The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soils hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility; and the applicant can design, engineer and construct the facility to avoid dangers to human safety presented by the hazards identified. The Council reviews proposed energy facilities such as power plants, major electric transmission lines, major gas pipelines (greater than 16 inch diameter) for compliance with this standard. They do so in consultation with Oregon Department of Geology and Mineral Industries under an interagency agreement. In response to an electricity shortage, the 2001 Oregon Legislature created an expedited review process for certain qualifying power plants. These power plants are generally not required to meet the structural standard; however, the Oregon Office of Energy, in consultation with

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Oregon Department of Geology and Mineral Industries, can still impose conditions on these plants related to the structural standard.

(OR-18) Executive Order 08-20: Establishes the Governor's Emergency Recovery Framework. The Order established a Recovery Planning Cell to direct emergency recovery in Oregon during times of significant crisis. The Order also established the Governor's Recovery Cabinet to coordinate the next phase of on-going recovery efforts, after the initial response phase is complete.

Pennsylvania

(PA-1) Pennsylvania's Emergency Management Service Code, Title 35: Covers PEMA's overall legal responsibilities for emergency management. PA CS Title 35 Section 7102 defines emergency management as "the judicious planning, assignment and coordination of all available resources in an integrated program of prevention, mitigation, preparedness, response and recovery for emergencies of any kind, whether from attack, manmade or natural sources". Section 7311 establishes that PEMA was created "to assure prompt, proper and effective discharge of basic Commonwealth responsibilities relating to civil defense and disaster preparedness, operations and recovery. Title 35 addresses PEMA's responsibilities before, during and after disaster.

(PA-2) The Pennsylvania Municipalities Planning Code Act of 1968, P.L. 805, No. 247 (Act 247): Grants authority to boroughs, townships, and counties to individually or jointly prepare zoning, subdivision and land development ordinances, other ordinances, and official zoning maps. Zoning ordinances allow for local communities to regulate the use of land in order to protect the interest and safety of the general public. Zoning ordinances can be designed to address unique conditions or concerns within a given community. They may be used to create buffers between structures and high-risk areas, limit the type or density of development and/or require land development to consider specific hazard vulnerabilities. Subdivision and land development ordinances are intended to regulate the development of housing, commercial, industrial or other uses, including associated public infrastructure, as land is subdivided into buildable lots for sale or future development. Within these ordinances, guidelines on how land will be divided, the placement and size of roads and the location of infrastructure can reduce exposure of development to hazard events Act 247 also requires counties to create and adopt a comprehensive plan and encourages municipalities to adopt municipal or joint municipal comprehensive plans generally consistent with the county comprehensive plan. Comprehensive Plans promote sound land use and regional cooperation among local governments to address planning issues. These plans serve as the official policy guide for influencing the location, type and extent of future development by establishing the basis for decision-making and review processes on zoning matters, subdivision and land development, land uses, public facilities and housing needs over time.

(PA-3) The Pennsylvania Construction Code Act (Act 45 of 1999): Established the basic requirements for the Uniform Construction Code. Vulnerability to various natural and human-made hazard events is reduced through these requirements. Uniform Construction Code (UCC), a comprehensive building code that establishes minimum regulations for most new construction, including additions and renovations to existing structures. Municipalities are required to adhere to the UCC and enforce building code regulations for all building permits. The 2006 International Codes issued by the International Code Council are currently in use under the UCC.

(PA-4) Executive Order 1999-1-provides the basis for integrating hazard mitigation into comprehensive and land use planning. Comprehensive Land Use Plans define how and where a community, region, or

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area should be developed. Land use plans also often include an assessment and associated mapping of the respective area's vulnerability to location-specific hazards. PEMA's participation in this process assists in the integration of mitigation strategies into the goals and objectives of the land use planning process.

Rhode Island

(RI-1) Rhode Island General Laws § 30-15-5 Emergency management preparedness agency created - There is hereby created within the executive department, the Rhode Island emergency management agency (hereinafter in this chapter called the "agency"), to be headed by the adjutant general of the Rhode Island national guard who shall be appointed by and serve at the pleasure of, the governor, and who shall be in the unclassified service. The adjutant general may employ such technical, clerical, stenographic, and other personnel, all of whom shall be in the classified service, and may make such expenditures within the appropriation therefor, or from other funds made available for the purposes of this chapter, as may be necessary to carry out the purposes of this chapter, consistent with other applicable provisions of law. The agency may provide itself with appropriate office space, furniture, equipment, supplies, stationery, and printing. The adjutant general, subject to the direction and control of the governor, shall be the executive head of the agency, and shall be responsible to the governor for carrying out the program for disaster preparedness of this state. The adjutant general shall coordinate the activities of all organizations for disasters within the state, and shall maintain liaison with and cooperate with disaster agencies and organizations of other states and of the federal government. The adjutant general shall have such additional authority, duties, and responsibilities authorized by this chapter as may be prescribed by the governor.

(RI-2) DOA Comprehensive Planning and Land Use Act (R.I.G.L. 45-22.2)-This act requires local governments to adopt and maintain local comprehensive plans. The plans can be used to direct community land use decisions and capital improvement funding strategies. Under the Act, local plans must be reviewed for consistency with the State Guide Plan and the goals and policies of State agencies. Future updates of local comprehensive plans will be expected to address hazard mitigation in order to be consistent with this State Guide Plan Element. The State Guide Plan and all policies relating to hazard mitigation have proven to be very effective in helping communities implement local hazard mitigation policies, programs and projects through their local community comprehensive plans as mandated by the State Guide Plan. Provides another mechanism to integrate State Hazard Mitigation Plan with local plans, and also more opportunities to enforce mitigation actions through the comprehensive local plans.

(RI-3) State Building Commission, Building Code (R.I.G.L. 23-27.3, 1976)-RI. Building Code is implemented statewide and enforced through the building official in each city and town. The Code consists of uniform regulations to control construction, reconstruction, repair, removal, demolition, and inspection of all buildings. Section 1313.0 contains most of the NFIP construction requirements. The NFIP standards, wind and snow loads are all an integral part of the State building code ensuring that all new construction and substantial improvements meet national flood resistant standards. Communities have enacted stricter standards under their local floodplain ordinances. **Seismic design standards are advisory**.

The effective date of the original implementation of the Rhode Island State Building Code was July 1, 1977, following adoption of the concept of uniform regulations to control construction, reconstruction, repair, removal, demolition, and inspection of all buildings in the state. (GL, 23-27.3) The Rhode Island building code incorporates provisions of BOCA (Building Officials and Code Administrators International,

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Inc.) the basic national Building Code with changes and additions as adopted by the State of Rhode Island Building Code Standards Committee. BOCA consists of model building regulations for the protection of public health, safety and welfare. The chief executive of each city and town is required to appoint a Building Official to administer the Building code; two or more communities may join in the appointment of a building official. The Code stipulates that the building official review all permits for construction in flood hazard areas to ascertain that all required federal, state, and local permits have been obtained. BOCA provisions for earthquake loads are contained in the State Building Code "for reference only." **The State Building Code Standards Committee reserves the right to require the earthquake design provisions for any structure. Structures which shall require earthquake design are as follows: fire stations, hospitals, police stations, high hazardous structures, and elevated structures over 6 stories or 75 feet in height.**

(RI-4) Rhode Island Executive Order 98-13-On December 18, 1998, Governor Lincoln Almond signed an Executive Order designating Rhode Island as the first Showcase State for Natural Disaster Resistance and Resilience in the country. The Governor's Showcase State Executive Order provides a comprehensive framework for public and private stakeholder collaboration on natural disaster protection. The Rhode Island Emergency Management Agency (RIEMA), the Institute for Business & Home Safety (IBHS), the Region I Office of the Federal Emergency Management Agency (FEMA), public and private partners have all been collaborating to prevent injuries and deaths, protect public and private property and create a disaster-ready statewide economy. The goal is to make natural hazards loss reduction an integral part of everyday planning and decision-making in Rhode Island at the state and local government levels.

The first of 14 Showcase elements charges the state, under the leadership of RIEMA, to "identify state agencies and private sector entities responsible for implementing actions in each of the areas" and to develop a strategic plan. As a result, a Showcase State Steering Committee, led by RIEMA and comprised of a variety of state agencies and private sector representatives, was formed and met three times in 1999 to develop a strategic plan. Steering committee members represent agencies or organizations that have a mission, authority and accountability that encompass one or more of the 14 elements of the Showcase State Executive Order. Each Showcase element adds a critical piece to the collective, comprehensive effort - an endeavor which will create its own momentum to raise public awareness, concern and activity to make Rhode Island a safer place in which to live, work and play.

South Carolina

(SC-1) Executive Order 99-11-This executive order established the Interagency Coordinating Committee (ICC) and mandated it be responsible for developing and maintaining the State Hazard Mitigation Plan.

(SC-2) Regulation 58 Division of Public Safety Programs, SC Code of Regulations- Describes the requirements for state and local jurisdictions regarding establishment of Emergency Preparedness organizations.

(SC-3) South Carolina Local Government Comprehensive Planning Enabling Act of 1994 (Title 6, Chapter 9 of the South Carolina Code of Laws) - gave local governments the authority to adopt and update comprehensive plans. These plans contain the planning process that examines an inventory of existing conditions, a statement of needs and goals, and implementation strategies with time frames. To accomplish this, the plan contains population, economic development, natural resources, cultural resources, community facilities, housing, and land use elements. Thus, comprehensive plans provide an important vehicle to address hazards. Adoption of comprehensive plans gives a community the authority to enact zoning and land use ordinances. An important addition to the plan includes the

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inclusion of mitigation-related activities into comprehensive plans. In addition, the plans state that counties and municipalities should try to identify innovative ways to use existing planning requirements to reduce future disaster losses.

(SC-4) Building Codes-Building codes are regulations developed by recognized agencies establishing minimum building requirements for safety such as structural requirements for wind, earthquake, flood, and fire protection. Building codes address acceptable design standards. The South Carolina Building Code Council reviews and adopts acceptable building codes. In February 2007, the Building Code Council updated the mandatory and permissive building codes to reflect the new International Code series. The Building Codes Council registers all code enforcement officials in the state to verify the credentials of those performing these duties.

(SC-5) South Carolina Code of Laws Title 10, Chapter 7: Provides authority for the South Carolina State Budget and Control Board to operate and manage the Insurance Reserve Fund. The Fund provides insurance to governmental entities. Because South Carolina has significant hurricane and earthquake exposures, all Insurance Reserve Fund property insurance policies include coverage for wind, flood, and earthquake. All Insurance Reserve Fund liability policies are designed to meet the needs of governmental entities and to comply with applicable statutes.

South Dakota

(SD-1) County Planning and Zoning-Within South Dakota's Codified Laws Title 11 Chapter 2 allows counties to develop comprehensive plans and adopt zoning ordinances. The purpose of a comprehensive plan is for "protecting and guiding the physical, social, economic, and environmental development of the county..". Similarly, the purpose of a zoning ordinance is "promoting health, safety, or the general welfare of the county". While these are not required, through this statute the State has empowered local governments to implement regulations consistent with hazard mitigation priorities. The statute may be viewed in detail at http://legis.state.sd.us/statutes/DisplayStatute.aspx?Type=Statute&Statute=11-2.

(SD-2) Executive Order 2007-07-On April 4, 2007, Governor M. Michael Rounds signed Executive Order 2007-07 directing the establishment of the South Dakota Hazard Mitigation Team and authorizing this team to function in compliance with the responsibilities specified in the order. The core leadership of the State Hazard Mitigation Team consists of one representative from each of the departments and offices listed in the executive order and in Table 2-1. The planning process involved several meetings of the State Hazard Mitigation Team, a series of regional stakeholder meetings, many conference calls among team members and the contracted consulting staff, as well as, communication via e-mail and digital data sharing. A summary of the meetings and collaboration is presented in Table 2-2: Summary of Planning Process. Based on the collaboration among SDOEM, the SHMT, and the contracted consultants, Dewberry was able to draft a complete updated 2007 State of South Dakota Multi-Hazard Mitigation Plan for review and edit by the project team, SHMT, and regional stakeholders. Each section of the plan was reviewed, analyzed and thoroughly updated.

(SD-3) Building Codes and Regulations (South Dakota Codified Laws Title 11 Chapter 10) -The State does not regulate local building. This is regulated by the local jurisdictions through building permits. The State of South Dakota has approved the International Building Code and the International Fire Code for local adoption. Several jurisdictions have adopted International Codes since the year 2000. The International Code Council tracks code adoption for the State, as well as jurisdictions in South Dakota:

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http://www.iccsafe.org/government/adoption.html. As of the 2007 State of South Dakota Multi-Hazard Mitigation Plan update, the following jurisdictions have adopted the International Building Code and the International Residential Code among other International Codes: Aberdeen, Fort Pierre, Hot Springs, Hughes County, Huron, Lead, Mitchell, Pierre, Rapid City, Sioux, Sioux Falls, Spearfish, Whitewood, and Winner.

(SD-4) Emergency Management (South Dakota Codified Laws Title 33 Chapter 15) - In order to ensure that preparation of this state will be adequate to deal with an emergency or disaster, and to provide for the common defense and to protect the public peace, health, and safety and to preserve the lives and property of the people of the state, it is hereby found and declared to be necessary to create a Division of Emergency Management, and to authorize the creation of local organizations for emergency management in the political subdivisions of the state; to confer upon the Governor, the secretary and upon the executive heads or governing bodies of the political subdivision of the state the emergency powers provided by this chapter; to provide for the rendering of mutual aid among the political subdivisions of the state and with other states and to cooperate with the federal government for the carrying out of emergency management functions; and to cooperate with each association, authority, board, commission, committee, council, department, division, office officer, task force, or other agent of the state vested with the authority to exercise any portion of the state's sovereignty.

Texas

(TX-1) Texas Disaster Act of 1975-TEXAS GOVERNMENT CODE CHAPTER 418-Sections 102-104 - These sections discuss county, municipal, and inter-jurisdictional emergency management programs. One of the requirements articulated is that a county ”shall maintain an emergency management program or participate in a local or inter-jurisdictional emergency management program that, except as otherwise provided by this chapter, has jurisdiction over and serves the entire county or inter-jurisdictional area.” In addition, Section 106 states: “Each county shall prepare and keep current an emergency management plan for its area providing for disaster mitigation, preparedness, response, and recovery.” GDEM requires that jurisdictions achieve and maintain the Advanced Standards (planning, training and exercises) outlined in the *DEM 100 – Preparedness Standards* to receive Emergency Management Performance Grant (EMPG) funding. One of the requirements is to have an Annex P – Hazard Mitigation that describes how they will do the function of hazard mitigation in their community. This at least requires the EMPG jurisdictions to address mitigation issues.

Note: Texas law does not give authority to counties for certain actions or enforcement activities such as zoning or to adopt and enforce building codes because there is no enabling legislation. Until authority and enabling legislation is granted to county government by the State legislature, county government can take no action to reduce risk to life and property (unless they are a participant in the National Flood Insurance Program and the property to be developed is located in the 100-year - floodplain). This means that counties cannot enact building and land management standards or use of zoning as a means to regulate development. A consequence of this is that minimal building standards are observed in rural areas while municipalities exercise complete authority to set higher standards for the protection of life and property. Frequent legislative attempts to modify enabling legislation to give county governments the authority to regulate zoning and to adopt building codes have never been successful. Many rural legislators are opposed to strong county governments and believe these measures should be retained at the State and municipality levels of government. That way they will have the authority to regulate

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development in hazard areas and have equal authority to reduce risks for rural and unincorporated communities.

Utah

(UT-1) Civil Defense Act of 1950-Authorizes the creation of the Utah Civil Defense Agency (the predecessor to Utah HLS) and the development of a statewide civil defense program. Give Utah HLS statewide authority to coordinate emergency management activities statewide.

(UT-2) Disaster Response Recovery Act, Utah Code 63-5A- Assist state and local government to effectively provide emergency disaster response and recovery assistance.

(UT-3) *Utah Code Annotated* Chapter 73 Geological and Mineral Survey-Section 68-73-6-Objectives of Survey (1) Determine and investigate areas of geologic and topographic hazards that could affect the safety of, or cause economic loss to, the citizens of this state; (f) assist local and state government agencies in their planning, zoning, and building regulations functions by publishing maps, delineating appropriately wide special earthquake risk areas, and, at the request of state agencies, review the citing of critical facilities:

(UT-4) *Utah State Office of Education (USOE) Rule R277-455 Standards and Procedures for building plan review* R277-455-4 Criteria for Approval; to receive approval of a proposed building site, the local school district must certify that: Staff of the Utah Geologic Survey have reviewed and recommended approval of the geologic hazards report provided by the school districts geo-technical consultant.

(UT-5) Emergency Management Act of 1981, Utah Code 53-2, 63-5.-Establishes an emergency/disaster management system. Establishes Utah HLS. In Utah Code 53-2-104, it is stated that the Utah Division of Homeland Security shall prepare, implement, and maintain programs and plans to provide for: Prevention and minimization of injury and damage caused by disasters; Identification of areas particularly vulnerable to disasters; Coordination of hazard mitigation and other preventive and preparedness measures designed to eliminate or reduce disasters; Assistance to local officials in designing local emergency action plans; Coordination of federal, state, and local emergency activities; Coordination of emergency operations plans with emergency plans of the federal government; and Other measures necessary, incidental, or appropriate to this chapter.

(UT-6) Utah Seismic Safety Commission Act-The 13-member Utah Seismic Safety Commission (USSC) was established with the passage of **House Bill 358**, during the 1994 legislative session. In the 2000 legislative session, the **USSC Act was amended by HB200**. This amendment revised the membership of the Commission and added two additional seats. The USSC advises federal, state and local agencies and jurisdictions along with the private sector on earthquake-related policy and loss-reduction strategies. The objective of USSC is to: Review earthquake-related hazards and risk in Utah; Prioritize recommendations to identify and mitigate these hazards and risks; Prioritize recommendations for adoption as policy or loss reduction strategies; Act as a source of information for earthquake safety and promote loss reduction measures; Prepare a strategic seismic safety planning document, and Update the strategic-planning document and other supporting studies or reports. The USSC has compiled a report outlining a long-term plan to improve earthquake safety in the state of Utah entitled “A Strategic Plan for Earthquake Safety in Utah.”

(UT-7) Utah Administrative Code Rule R156-56 Utah Uniform Building Standard Act Rule- The State of Utah adopted the International Building Code IBC. By law, each jurisdiction in Utah must also adopt the

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IBC. This process has occurred in the majority of both urban and rural jurisdictions Utah. These higher design codes especially with regards to seismic design will greatly reduce damage to new buildings.

Vermont

(VT-1) Vermont Statute V.S.A. Title 20- Tasks Vermont Emergency Management with several responsibilities: 1. Create a state emergency management agency, and authorize the creation of local organizations for emergency management in towns and cities of the state; 2. Confer upon the governor and upon the executive heads or legislative branches of the towns and cities of the state the emergency powers herein; 3. Provide for the rendering of mutual aid among the towns and cities of the state, and with other states, and with the Federal government with respect to carrying out an emergency management functions; and 4. Authorize the establishment of such organizations and the taking of such steps as are necessary and appropriate to carry out the provisions of this chapter.

V.S.A. Title 20 created the division of Emergency Management within the Department of Public Safety and imparted the following responsibilities: 1. Prepare and maintain a Radiological Emergency Response Plan (RERP) in cooperation with other state and local agencies. The plan shall be designed to protect the lives and property of persons residing within this state who might be threatened as a result of the proximity to any operating nuclear reactor. The plan shall be formulated in accordance with procedures approved by the Federal Nuclear Regulatory cogency; 2. Assist the state emergency response commission, the local emergency planning committees and the municipally established local organizations…in developing, implementing, and coordinating emergency response plans; 3. Provide administrative support to the state emergency response commission.

(VT-2) Title 24 V.S.A. Chapter 117: Vermont Municipal and Regional Planning and Development Act Chapter 117-§4302: The overall purpose of this chapter is to encourage the appropriate development of all lands in Vermont. Appropriate development should include the promotion of safety against fire, floods, explosions, and other dangers. Specific goals furthered by this chapter include safe and energy efficient transportation systems, protection and preservation of important natural and historic features, sound forest and agricultural practices, wise and efficient use of energy and other natural resources, availability of safe housing, and an efficient system of public facilities and services. All plans and regulations should be based upon surveys of existing conditions and future trends with consideration for topography and suitability for particular use in relationship to surrounding areas.

(VT-3) §4382: The Plan for a Municipality-Municipal plans should include objectives to protect the environmental and objectives for future growth and development of the land, public services, and facilities. A land use plan should indicate areas proposed for various uses and open space reserved for flood plain, wetland protection, and other conservation purposes.

(VT-4) §4405: Zoning; Zoning Districts-Zoning can include classification for the regulation, restriction or prohibition of uses of structures at or near major thoroughfares, bodies of water, places of steep slope or grade, public buildings, floodplain areas, and other places having a special character or use affecting and affected by their surroundings.

(VT-5) Vermont Fire Prevention & Building Code: The Vermont Fire Prevention & Building Code (hereinafter the *code*) are the rules adopted under 21 VSA chapter 3, subchapters 7 & 8, to protect the public from harm arising from fire or dangerous structural conditions. The *code* is in effect statewide. Numerous nationally recognized codes & standards are adopted or referenced in the *code* to provide

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consistent regulations for both general and specific application. The *code* is updated approximately every six years.

(VT-6) Municipal Code Adoption: A municipality may adopt a fire or building code (see 24 V.S.A. chapter 83). Any building code adopted by a municipality must be consistent with the Vermont Fire Prevention & Building Code. A municipal building code may apply to owner occupied single-family dwellings in addition to public buildings & multifamily or rental dwellings. There are currently seven municipalities (Barre, Bellows Falls, Bennington, Brattleboro, Burlington, Hartford and Winooski) that have a co-operative inspection agreement to enforce portions of the *code.* Seismic Design Requirements: Structural design for seismic loads on new public buildings are regulated under section 1610 of the 1996 Building Code, as referenced under the *code*, and as determined by the building designer based on the nature of the occupancy, the type of construction, etc. Certification is required from the building designer indicating the building is designed to prevent normally anticipated unstable or dangerous conditions.

Virginia

(VA-1) ***The Code of Virginia § 44-146.17*** allows the Governor to appoint an Emergency Coordinator to carry out all provisions of the Code of Virginia relating to emergency preparedness, response and recovery.

(VA-2) ***The Code of Virginia § 44-146.22 Development of measures to prevent or reduce harmful consequences of disasters; disclosure of information*****-**specifically authorizes the Governor to consider hazard mitigation measures to prevent or reduce the harmful consequences of disasters. The Governor is expected to make recommendations to the General Assembly, local governments, and appropriate public and private entities. This Plan supercedes the hazard mitigation plan developed in 2001 and revised and approved in 2004 and March 14, 2007. It constitutes Volume 2, Support Annex 3 of the multi-volume *Commonwealth of Virginia Emergency Operations Plan.* In addition to disaster prevention measures included in state, local and inter-jurisdictional emergency operations plans the Governor shall consider on a continuing basis, hazard mitigation or other measures that could be taken to prevent or reduce the consequences of disasters. At his direction, and pursuant to any other authority, state agencies, including but not limited to, those charged with responsibilities in connection with floodplain management, stream encroachment and flow regulation, weather modification, fire prevention and control, air quality, public works, critical infrastructure protection, land use and land use planning, and construction standards, shall make studies of disaster prevention. The governor, from time to time, shall make recommendations to the General Assembly, local governments, and other appropriate public and private entities as may facilitate measures for prevention or reduction of the harmful consequences of disasters. The Governor or agencies acting on his behalf may receive information, voluntarily submitted from both public and nonpublic entities, related to the protection of the nation's critical infrastructure sectors and components that area located in Virginia or affect the health, safety and welfare of the citizens of Virginia. Information submitted by any public or nonpublic entity in accordance with the procedures set forth in subdivision 4 of §2.2-3705.2 shall not be disclosed unless: It is requested by law-enforcement authorities in furtherance of an official investigation of a criminal act; The agency holding the record is served with proper judicial order; or The agency holding the record has obtained the written consent to release the information from the entity voluntarily submitting it. (1973, c. 260; 1974, c. 4; 1975, c. 11; 2000, c. 309; 2003, c. 848; 2004, c.690.)

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(VA-3) 2005 Uniform Statewide Building Code includes provisions related to wind hazards, snow loads, seismic risk flood hazards, and structural fire hazards. The Uniform Statewide Building Code, in partnership with the International Code Commission, incorporated the 2003 International Building Code into its November, 2005 adoption which supersedes previous building codes and regulations (**§36-98, Code of Virginia**). The code has been cross-walked with the National Flood Insurance Program regulations and is consistent with local floodplain ordinances. The State Building Code Official provides technical assistance and interpretation of regulations to local governments. Periodic revision of the statewide building code usually includes adoption of the current International Building Code along with other state-specific regulations. This most recent adoption, provided wind strengthening measures that will reduce damages from severe storms and hurricanes. Although there is some variation on predicted earthquake severity, Virginia building codes do not specifically address earthquake because of the low probability for structure-damaging earthquakes in Virginia. The minimum typical design standards in Virginia provide adequate protection from infrequent earthquakes in the state. **Uniform Statewide Building Code – 201.5(b)(3)(iv)-**Title 36, Chapter 6 of the Commonwealth *Code of Virginia* was created in 1972 to address regulation of construction. The current building code required for use by all Virginia cities has an effective date of November 16, 2005. The Virginia Uniform Statewide Building Code is a state regulation promulgated by the Virginia Board of Housing and Community Development to establish minimum regulations to govern construction and maintenance of buildings and structures. The provisions of the code are based on nationally recognized International Code Commission standards. The November 16, 005USBC updates the Virginia Uniform Statewide Building Code to the 2003 International Building Code with state amendments. The staff of the Department of Housing and Community Development promulgated the code through notification in *The Virginia Register of Regulations.* Virginia cities, counties and towns are required by the *Code of Virginia* to adopt and enforce the Uniform Statewide Building Code.

(VA-4) Virginia Certification Standards (VCS 13 VAC 5 – 21) -The Training and Certification Office (TCO) within DHCD's Division of Building and Fire Regulation works to ensure safe buildings and homes throughout the commonwealth by providing its clients with four major services: Training; Certification; Accreditation; and *Code Connection* Newsletter. Training is provided as mandated by Virginia Certification Standards (VCS 13 VAC 5 – 21) through DHCD's Virginia Building Code Academy (VBCA). VBCA offers training in the following modules to help ensure safe buildings and homes: Core, Advanced Official, Property Maintenance, Plan Review, Mechanical Inspection, Electrical Inspection, Plumbing Inspection, Building Inspection, and Amusement Device Inspection. The focus of VBCA training programs is on the populations that enforce the USBC, SFPC, and VADR. Specifically, VBCA programs are designed for individuals employed by local jurisdictions in Virginia in the occupations of building code official, fire code official, maintenance code official, and their technical assistants/inspectors in the disciplines of mechanical, electrical, plumbing, building, property maintenance, elevator, and amusement device inspection.

(VA-5) Comprehensive Plans are prepared by local government planning commissions and address the physical development of land within a jurisdiction's boundaries. The comprehensive plan *shall be made with the purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the territory which will, in accordance with present and probable future needs and resources, best promote the health, safety, morals, order, convenience, prosperity and general welfare of the inhabitants* (**§15.2-2223, *Code of Virginia*).** Most plans evaluate and provide guidance for land use and the environment. Residential, business, industrial, agricultural, parks and open space, public land, floodplains, transportation corridors, community facilities, historical districts and areas targeted for

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redevelopment are addressed within the plan. Also included are demographic trends such as population densities and age and quality of housing stock. Comprehensive plans are revised on a five-year planning cycle by local governments; VDEM mitigation planners will work with local and regional mitigation planning steering committees and local government contacts to ensure that appropriate hazard mitigation local HIRA data and mitigation strategies are incorporated into local comprehensive plans as appropriate.

(VA-6) Zoning Ordinances are for the general purpose of promoting health, safety or general welfare of the public. Comprehensive plans and ordinances for zoning and subdivisions must explicitly address flood hazards and geologic information (§**15.2.223 et seq. *Code of Virginia***). Cities and counties in coastal zones also must address coastal management issues such as beach erosion and federally protected dune areas. Hazards not specifically required for plans to address include: non-building aspects of severe winter storms, landslides, wildfire at the urban/forest interface, and dam-break hazards. However, these natural hazards are usually addressed in local comprehensive plans and in some cases, such as dams, delineation of downstream inundation zones are required in dam emergency operation plans. In addition, local emergency operations plans address natural hazards. Some consideration to the following is given within each zoning district, where applicable: adequate light, air, convenience of access, and safety from fire, flood, crime and other dangers; provision of adequate police and fire protection, disaster evacuation, water, sewerage, flood protection, and other public requirements; and Protection against loss of life, health, or property from fire, flood, panic or other dangers (**§15.2-2283, *Code of Virginia*).**

(VA-7) Land Subdivision and Development Ordinances are prescribed by statute and provide restrictions for plats, utilities, streets, flood control, drainage, and other regulations that control the density and use of the land. **(§15.2-2241, *Code of Virginia***). These ordinances are generally only in place in rapidly developing or redeveloping jurisdictions. As with local comprehensive plans, revision of land subdivision and development ordinances should now be informed by jurisdiction HIRA information as well as relevant mitigation strategies outlined in local or regional mitigation plans.

(VA-8) Executive Order 7 (2002) declares that all executive branch agencies prepare, within 120 days, emergency response plans or updates to existing plans that address continuity of their operations and services, and the security of their customers and employees, in the event of natural or man-made disasters or emergencies, including terrorist attacks. These agency plans shall be presented to the Office of the Governor and shall be made available to the Panel as part of its work in preparing a statewide emergency preparedness, response, and recovery plan.

(VA-9) Executive Order 69 (2004) declares that all executive branch agency heads certify by June 1, 2004 that they have completed updates and/or development of plans that address continuity of their operations and services, and the security of their customers and employees, in the event of natural or man-made disasters or emergencies, including terrorist attacks. It further directs that all executive branch agencies exercise and test these plans on or before September 1, 2005.

Washington

(WA-1) Growth Management Act – This state law (**RCW 36.70A**) requires all cities, towns and counties in the state to identify critical areas, and to establish regulations to protect and limit development in those areas. Among the critical areas defined by state law are frequently flooded areas (floodplains, and areas potentially impacted by tsunamis and high tides driven by strong winds) and geologically

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hazardous areas (those areas susceptible to erosion, landslide, seismic activity, or other geological events such as coalmine hazards, volcanic hazard, mass wasting, debris flows, rock falls, and differential settlement).

Guidance provided to local government states that critical areas protection programs should address a number of issues, including: Protecting members of the public, public resources and facilities from injury, loss of life, or property damage due to landslides and slope failures, erosion, seismic events, volcanic eruptions, or flooding; Maintaining healthy, functioning ecosystems through the protection of unique, fragile, and valuable elements of the environment; Directing activities not dependent on critical areas resources to less ecologically sensitive sites, and mitigating unavoidable impacts to critical areas by regulating alterations in and adjacent to those areas; and Preventing cumulative adverse environmental impacts to frequently flooded areas.

Since 1995, local governments must consider best available science in their identification and protection of critical areas; a catalog of sources of best available science has been prepared for their use. (Note: Initial critical area regulations, developed in the early 1990s, were not prepared to the best available science standard.) Legislation passed in 2003 requires cities, towns and counties to review and revise as necessary their critical areas policies every seven years. All jurisdictions are required to have updated critical areas regulations by the end of 2008.

The GMA also allows those cities, towns and counties required or voluntarily choosing to develop comprehensive plans to add an optional natural hazard reduction element to those plans. To facilitate the development of natural hazard reduction elements, the Department of Community Trade and Economic Development – Growth Management Services used an HMGP grant to develop and publish a guidebook on how to incorporate natural hazard reduction into local land-use plans.

(WA-2) Earthquake Construction Standards (RCW 70.86)-Approved in 1955. Requires newly constructed schools, hospitals, and places of public assembly to withstand a lateral force of 5 percent of the building weight. Law did not keep up with changes in code criteria; outdated by time 1973 building codes adopted. Remains on the books.

(WA-3) State Building Code Act (RCW 19.27)-Adoption of building codes initially was the discretion of individual cities and counties. Passage of the State Building Code Act in 1974 mandated the use of 1973 UBC building codes throughout the state. Since this time, local jurisdictions can make amendments to the code but changes cannot diminish code requirements.

The State Building Code Council now adopts building, fire and mechanical codes for the state of Washington. These codes set minimum performance standards for buildings. The council amends the codes to meet state needs, but only if changes improve upon the original codes. The council adopted and amended the 2003 editions of the International Code Council building, residential, mechanical and fire codes published by the International Code Council, and the 2003 edition of the Uniform Plumbing Code published by the International Association of Plumbing and Mechanical Officials. The council also amended the state energy code. Adoption of 2003 building, mechanical, fire, and plumbing codes brings Washington State's building codes to the highest level nationwide and they address the state's seismic hazard.

The Legislature approved in 2003 the use of a new suite of international building, mechanical and fire codes that address natural hazards as a basis for design and construction in Washington, including the design and construction of state-sponsored mitigation projects. The State Building Code Council (SBCC) adopted these new codes, which then took effect statewide in July 2004. In November 2006 the Council

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voted to adopt amendments to the codes which took effect July 1, 2007. These amendments included the 2006 International Codes, including building, residential, mechanical, fire and uniform plumbing codes and included provisions for structural design including earthquake loads and flood hazards. Local amendments to the code adopted by the SBCC must meet or exceed the minimum performance set by the state code and when affecting 1- to 4-unit residential buildings, must be approved by the SBCC. The code applies to all building permits in the state of Washington. The building codes are driven in part by soils and liquefaction maps prepared by the DNR (paid for in part by HMGP funds provided following the Nisqually Earthquake disaster in 2001).

Before adoption of a statewide building code in 1974, there was a wide variation of minimum standards, as well as variation in use of requirements to address hazards including earthquake and winter storm. The state building code is updated regularly to account for new knowledge of hazards and changes in construction methods and materials, and to incorporate new designs and technologies. Despite 30 years of uniform building codes, consistent enforcement remains a problem. Local building departments are responsible for enforcing federal, state and local codes related to building construction projects. A study of structural failures following the December 1996 – January 1997 winter storms recommended more education and better communication for all parties involved in construction of buildings, including construction plans examiners and local building inspectors.

State amendments to the 2003 building codes drafted in 2006 took effect July 1, 2007. All structures built after that date must comply with the new building codes, which includes provisions for the state's seismic hazard.

(WA-4) RCW 38.52.040 Emergency Management Council-There is hereby created the emergency management council (hereinafter called the council), to consist of not more than seventeen members who shall be appointed by the governor. The membership of the council shall include, but not be limited to, representatives of city and county governments, sheriffs and police chiefs, the Washington state patrol, the military department, the department of ecology, state and local fire chiefs, seismic safety experts, state and local emergency management directors, search and rescue volunteers, medical professions who have expertise in emergency medical care, building officials, and private industry. The representatives of private industry shall include persons knowledgeable in emergency and hazardous materials management. The council members shall elect a chairman from within the council membership. The members of the council shall serve without compensation, but may be reimbursed for their travel expenses incurred in the performance of their duties in accordance with RCW 43.03.050 and 43.03.060 as now existing or hereafter amended.

The emergency management council shall advise the governor and the director on all matters pertaining to state and local emergency management. The council may appoint such ad hoc committees, subcommittees, and working groups as are required to develop specific recommendations for the improvement of emergency management practices, standards, policies, or procedures. The council shall ensure that the governor receives an annual assessment of statewide emergency preparedness including, but not limited to, specific progress on hazard mitigation and reduction efforts, implementation of seismic safety improvements, reduction of flood hazards, and coordination of hazardous materials planning and response activities. The council or a subcommittee thereof shall periodically convene in special session and serve during those sessions as the state emergency response commission required by P.L. 99-499, the emergency planning and community right-to-know act. When sitting in session as the state emergency response commission, the council shall confine its deliberations to those items specified in federal statutes and state administrative rules governing the coordination of

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hazardous materials policy. The council shall review administrative rules governing state and local emergency management practices and recommend necessary revisions to the director.

(WA-5) The Transportation Partnership Act of 2005-Bridges and roads all over Washington pose a public safety risk if not fixed. The Alaskan Way Viaduct and the 520 floating bridge are a tremor away from shutdown or collapse. Should either of these structures fail, the loss of life and disruption to our economy would be devastating. Across the state, 139 bridges have load restrictions because they're old and damaged, and need to be replaced. Another 800 bridges need "seismic retrofits": they need to be shored up so their columns and foundations don't crumble in an earthquake. Other work is needed to preserve many of our bridges, rather than replace them later at a higher cost. The Nickel Package funded seismic retrofits for a number of the state's most vulnerable bridges, whose columns need to be encased in steel to keep them from collapsing in an earthquake. But nearly 800 more bridges remain on the retrofit list. This package provides $87 million to speed up work on 157 of the most vulnerable bridges in earthquake zones.

(WA-6) RCW 43.92.025 – Geologic Survey Seismic, landslide and tsunami hazards - In addition to the objectives stated in RCW 43.92.020, the geological survey must conduct and maintain an assessment of seismic, landslide, and tsunami hazards in Washington. This assessment must include the identification and mapping of volcanic, seismic, landslide, and tsunami hazards, an estimation of potential consequences, and the likelihood of occurrence. The maintenance of this assessment must include technical assistance to state and local government agencies on the proper interpretation and application of the results of this assessment

(WA-7) WAC 365-190-120 Critical Areas-Geologically Hazardous Areas-Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological events. They pose a threat to the health and safety of citizens when incompatible commercial, residential, or industrial development is sited in areas of significant hazard. Some geological hazards can be reduced or mitigated by engineering, design, or modified construction or mining practices so that risks to public health and safety are minimized. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas must be avoided. The distinction between avoidance and compensatory mitigation should be considered by counties and cities that do not currently classify geological hazards, as they develop their classification scheme.

Seismic hazard areas must include areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement or subsidence, soil liquefaction, surface faulting, or tsunamis. Settlement and soil liquefaction conditions occur in areas underlain by cohesionless soils of low density, typically in association with a shallow ground water table. One indicator of potential for future earthquake damage is a record of earthquake damage in the past. Ground shaking is the primary cause of earthquake damage in Washington, and ground settlement may occur with shaking. The strength of ground shaking is primarily affected by: The magnitude of an earthquake; The distance from

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the source of an earthquake; The type or thickness of geologic materials at the surface; and The type of subsurface geologic structure.

West Virginia

(WV-1) ***WV Code §§ 15-5-***Under WV Code § 15-5-1, the West Virginia legislature has declared that in order to ensure the state's preparedness for disasters, it is necessary to establish and implement a comprehensive emergency service plan. This Hazard Mitigation Plan meets this requirement and furthers the policy of WV Code § 15-5, that "all emergency services functions of this state be coordinated to the maximum extent with the comparable functions of the federal government including its various departments and agencies, of other states and localities and of private agencies of every type, so that the most effective preparation and use may be made of the nation's manpower, resources and facilities for dealing with any disaster that may occur" (WV Code § 15-5-1).

The West Virginia legislature created and empowered the Office of Emergency Services, now the WVDHSEM, through enactment of WV Code § 15-5-3. Under this section, the director of WVDHSEM, subject to the direction and control of the governor, is responsible to the governor for carrying out the program for emergency services in West Virginia. The director is required to coordinate the activities of all organizations for emergency services within the state and maintain liaison with and cooperate with emergency service and civil defense agencies and organizations of other states and of the federal government. Further, the governor may grant the director additional authority, duties, and responsibilities authorized by WV Code § 15-5 (WV Code § 15-5-3). WV Code § 15-5-4 establishes the Disaster Recovery Board. This entity was created to advise the governor and the director (of WVDHSEM) on all matters pertaining to emergency services; to disburse funds from the disaster relief recovery trust fund created pursuant to WV Code § 15-5-24 to any person, political subdivision, or local organization for emergency services; and to take such other actions necessary or appropriate in order to provide assistance to any person, political subdivision or local organization for emergency services responding to or recovering from the disaster, or otherwise involved in disaster recovery activities (WV Code §§ 15-5-4 & -5).

Further, under WV Code § 15-5-5(2), the Governor is empowered to prepare and implement a comprehensive plan and program for the provision of emergency services in West Virginia, such as this Hazard Mitigation Plan, and to integrate this plan into and to coordinate the plan with comparable plans of the federal government and of other states to the fullest possible extent (WV Code § 15-5- 5(2)). Under WV Code § 15-5-5(3), in accordance with a comprehensive plan such as this Hazard Mitigation Plan, the Governor is authorized to procure supplies and equipment, to institute training and public information programs, to take all other preparatory steps in advance of actual disaster (WV Code § 15-5-5(3)). Under WV Code § 15-5-5(4), the Governor is empowered to make such studies and surveys of industries, resources and facilities in this state as may be necessary to ascertain the capabilities of the state for providing emergency services and to plan for the most efficient emergency use thereof (WV Code § 15-5-5(4)). The studies contained in this Hazard Mitigation Plan have been undertaken pursuant to this authority and pursuant to Executive Order 18-03.

Finally, under WV Code § 15-5-20(a), "the governor shall consider on a continuing basis, steps that could be taken to prevent or reduce the harmful consequences of disasters. At his direction, and pursuant to any other authority and competence they have, state agencies, including, but not limited to, those charged with responsibilities in connection with flood plain management, stream encroachment and flow regulation, weather modification, fire prevention and control, air quality, public works, land use

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and landuse planning and construction standards, shall make studies of disaster prevention-related matters. The governor, from time to time, shall make such recommendation to the Legislature, political subdivisions and other appropriate public and private entities as may facilitate measures for prevention or reduction of the harmful consequences of disasters." (WV Code § 15-5-20(a)) Many of the recommendations contained in this plan are made pursuant to WV Code § 15-5-20(a).

(WV-2) ***Executive Order No. 18-03*****-**On August 18, 2003, former Governor Bob Wise signed Executive Order No. 18-03 (Appendix B). This Order recognizes that the State of West Virginia is vulnerable to natural and technological disasters and that compliance with the DMA 2000 will position the State of West Virginia to receive pre-disaster and post-disaster mitigation funding which can help reduce the impact of future disaster events. Executive Order No. 18-03 created the "Hazard Mitigation Council" which is empowered to implement a statewide initiative to improve disaster resistance through all-hazards mitigation planning. Under Executive Order No. 18-03, the Council is required to "demonstrate the benefits of taking specific, creative steps to help West Virginia communities reduce deaths, injuries and illnesses, property losses, economic losses, and human suffering caused by natural and technological disasters."

In addition, under Executive Order No. 18-03, the WVDHSEM is responsible for: 1. Assisting in the creation of the Hazard Mitigation Council; 2. Completing and periodically updating a statewide risk and vulnerability assessment of the state's natural and technological hazards; 3. Developing and maintaining a statewide all-hazards mitigation plan that takes into account the state's mitigation priorities; 4. Assisting the Hazard Mitigation Council with developing partnerships resulting in a coordinated approach to all-hazards mitigation; 5. Encouraging communities to participate in the NFIP; 6. Developing and supporting existing and future programs to increase the public's awareness of natural and technological hazards, including ways to reduce or prevent damage through a coordinated effort led by the Hazard Mitigation Council; 7. Encouraging the participation of industry, professional organizations, service organizations, voluntary agencies, the media, and the general public in this effort; and 8. Identifying existing incentives and disincentives for hazard reduction planning, and developing new incentives to further this effort.

(WV-3) WV Code §29-3-5b. Promulgation of rules and statewide building code.-As of September 2007, 60 cities and towns and five county governments have adopted the State Building Code to help ensure the safety of future buildings constructed in the jurisdiction. Some of the more rapidly growing areas (e.g. Berkeley County, Jefferson County, and the City of Hurricane in Putnam County) are among the jurisdictions that have adopted the State Building Code.

Wisconsin

(WI-1) Chapter 166, Emergency Management- Authorizes and establishes the organization for state and local emergency management programs, which are charged with the responsibility to the state and its subdivisions to cope with natural and technological disasters. Includes authorization for Wisconsin Emergency Management to require satisfactory completion of an annual plan of work from local county emergency management directors in return for receiving partial funding from the state for local emergency management positions.

(WI-2) Wisconsin State Statute 66.1001, Comprehensive Planning Law: After January 1, 2010, communities are required to have a comprehensive plan if they want to make land use decisions. All

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community programs and actions that affect land use must be guided by, and consistent with, the community's comprehensive plan.

(WI-3) The Home Safety Act-covered the entire state by January 1, 2005. This legislation requires the state's Uniform Dwelling Code be enforced throughout the state. This includes the necessity to have all new construction inspected for compliance with the UDC. This law will improve the construction of homes, by requiring implementation of safety standards. The effect will be a reduction in loss of property and injury from all types of natural hazards.

Requires the state's Uniform Dwelling Code be enforced in all municipalities. This includes the necessity to have new construction inspected for compliance with the UDC, the statewide building code for one and two-family dwellings built since June 1, 1980. Previous to the new legislation, municipalities with a population of 2500 or less could choose by resolution to decline UDC enforcement. Municipalities of over 2500 have been required to enforce the UDC. The change was effective December 18, 2003. However, it will take three to six months to get the enforcement system into place. On April 20, Governor Doyle signed legislation, AB 925 that will delay Uniform Dwelling Code (UDC) enforcement for some Wisconsin municipalities. The delay will be in effect May 5, after legal publication. Providing for adequate inspection and consultation is limited due to funding.

(WI-4) Wisconsin Administrative Code Comm. 61-65 (Wisconsin Commercial Building Code)-The Wisconsin Enrolled Commercial Building Code includes Comm. 61 to 65 and the adopted provisions of the International Code Council codes: *International Building Code*, *International Energy Conservation Code*, *International Mechanical Code*, and *International Fuel Gas Code***.** The purpose of the Commercial Building Code is to protect the health, safety, and welfare of the public and employees by establishing minimum standards for the design, construction, maintenance and inspection of public buildings, including multifamily dwellings, and places of employment. It is a statutory provision under subch. I of ch. 101, Stats. Ongoing code review and development is based on supportive funding.

(WI-5) Wisconsin State Statutue 101.12 Delegated Municipalities-Cities, villages, towns and counties may examine building plans and inspect buildings under s. 101.12, Stats. Prior to assuming these responsibilities, the municipality or county must comply with specific administrative rules that ensures there is uniformity in the building code application and the specific building code standards are being met. Safety & Buildings provides opportunities for partnering with other governmental agencies to extend the effectiveness of division programs and administrating funds relating to its programs.

Wyoming

(WY-1) The Wyoming Homeland Security Act, Wyoming Statute § 19-13-101 *et seq*. Each political subdivision through the homeland security program will cause to be prepared a local homeland security plan which will include actions essential to the recovery and restoration of the economy by supply and re-supply of resources to meet urgent survival and military needs and to provide for the ongoing management of resources available to meet continuing survival and recovery needs. Local jurisdictions may include development restrictions and mitigation planning in their local homeland security plans, but the state does not specifically require this. Federal grants and requirements lead to the development of local hazard mitigation plans.

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(WY-2) Wyoming Statutes § 35-9-101 *et seq* Fire Protection-The State of Wyoming has adopted the International Building Code. Not all jurisdictions in Wyoming have adopted building codes, much less the most current code. Buildings in those jurisdictions may not have the same disaster resistance as buildings in jurisdictions with adopted building codes.

Note: In summary, no Wyoming statutes restrict development in hazard prone areas. Any such restrictions, including floodplain development and development in areas prone to wildfire, would be generated at the local level.

The state does not directly fund any pre-disaster mitigation programs for natural hazards. It relies primarily on federal funding to assist local jurisdictions in carrying out mitigation activities. Local jurisdictions must provide their own match for federal grants, which is usually 25%.

Being a Home Rule state, planning and zoning are generally the responsibility of local governments. The State of Wyoming has no overall authority for planning and zoning with the exception of state lands. These factors place limitations on the state's ability to initiate, implement, or administer mitigation programs, particularly those that would address development in hazard prone areas.