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Office of Chief Counsel

REGULATORY EVALUATION,  
RETROSPECTIVE EVALUATION, AND  
REGULATORY FLEXIBILITY ASSESSMENT

FOR  
NOTICE OF PROPOSED RULEMAKING

CHANGE IN SUBMISSION REQUIREMENTS FOR STATE MITIGATION PLANS

OFFICE OF CHIEF COUNSEL  
REGULATORY AFFAIRS DIVISION

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# Change in Submission Requirements for State Mitigation Plans – Regulatory Evaluation

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## Introduction

The Federal Emergency Management Agency (FEMA)'s statutory authority<sup>1</sup> for mitigation planning is found in section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended (Stafford Act). The Stafford Act also provides statutory authority for FEMA to promulgate rules and regulations<sup>2</sup>. Under this authority and in concert with Executive Order 13563 retrospective review requirements, FEMA is proposing the Change in Submission Requirements for State Mitigation Plans Notice of Proposed Rulemaking (NPRM). The proposed rule would reduce the frequency of Standard State Mitigation Plan (Standard Plan)<sup>3</sup> and Enhanced State Mitigation Plan (Enhanced Plan)<sup>4</sup> updates by extending the update requirement from 3 to 5 years. The proposed rule would also align the State Mitigation Plan update requirements, with the Tribal and Local Mitigation Plan update requirements; reduce the burden placed on State governments; allow additional time between updates for implementation of mitigation plans; as well as respond to stakeholders' request for an extension of the State Mitigation Plan update cycle.

The following regulatory evaluation presents an economic analysis, including costs and benefits of the Change in Submission Requirements for State Mitigation Plans NPRM. It is a supplementary analysis to the NPRM, consistent with Executive Order 12866, Regulatory Planning and Review<sup>5</sup> and Executive Order 13563, Improving Regulation and Regulatory Review<sup>6</sup>. The evaluation first identifies the proposed changes and impacted population. It then outlines the cost and cost savings associated with extending the State Mitigation Plan update frequency from 3 to 5 years. Next, it evaluates the benefits associated with the proposed rule, followed by a comparison of costs and benefits as well as a summation of results. The evaluation then compares the identified costs and benefits and summarizes the results. Finally, the evaluation provides a discussion on the alternatives considered, different State Mitigation Plan cost estimates used in this evaluation and the Hazard Mitigation Planning and Hazard Mitigation Grant Program Final Rule, which published in the October 31, 2007 Federal Register,<sup>7</sup> as well as an examination into the proposed rule's impact on small entities.

## Regulatory Impacts

### Proposed Changes

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<sup>1</sup> 42 U.S.C. § 5165.

<sup>2</sup> 42 U.S.C. § 5164 (section 321 of the Stafford Act).

<sup>3</sup> 44 C.F.R. § 201.4 (2011).

<sup>4</sup> 44 C.F.R. § 201.5 (2011).

<sup>5</sup> 58 Fed. Reg. 51,735 (Oct. 4, 1993).

<sup>6</sup> 76 Fed. Reg. 3,821 (Jan. 21, 2011).

<sup>7</sup> 72 Fed. Reg. 61,552 (Oct. 31, 2007).

Currently, States are required to submit Standard or Enhanced Plan updates, at a minimum, every 3 years as a condition of receiving non-emergency Stafford Act assistance and FEMA mitigation grants.<sup>8</sup> However, under the proposed rule, States would be required to submit Standard or Enhanced Plan updates, at a minimum, every 5 years.

### **Impacted Population**

The proposed rule would affect “States”, as defined by the Stafford Act, that choose to submit updated Standard or Enhanced Plans to FEMA for approval.<sup>9</sup> At the time of this analysis, 56 States have approved mitigation plans. FEMA anticipates that all 56 States would continue to maintain and update their plans for the duration of this analysis. In addition, at the time of this analysis, 9 of the State Mitigation Plans are Enhanced Plans, 1 State Mitigation Plan is pending Enhanced Plan status, and 46 are Standard Plans. FEMA maintains a breakdown of 10 Enhanced Plans<sup>10</sup> (18 percent) and 46 Standard Plans (82 percent) for the duration of the analysis.

In addition to the States identified above, Indian Tribal Governments may choose to submit plans that meet the Enhanced State Mitigation Plan criteria identified in 44 C.F.R. § 201.5 (2011), which includes a 3 year update cycle.<sup>11</sup> However, to date, no Tribes have submitted Tribal Mitigation Plans<sup>12</sup> meeting the criteria identified in 44 C.F.R. § 201.5 (2011). Therefore, for the purposes of this analysis, FEMA assumes that Tribal Mitigation Plans would continue to follow the update cycle identified in 44 C.F.R. § 201.7(d) (3) (2011)<sup>13</sup> and not be impacted by the proposed rule.

### **Cost and Cost Savings**

This section begins by discussing the proposed mitigation plan update schedule compared to the existing update schedule over a 15 year period. It then calculates a State Mitigation Plan Update Unit Cost, which is used to estimate State 15 year cost savings. Lastly, Federal costs and cost savings are then estimated as well as the total cost savings of the proposed rule.

### **Update Schedule**

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<sup>8</sup> States must have approved Standard Plans meeting the requirements of 44 C.F.R. § 201.4 (2011), as a condition of receiving non-emergency Stafford Act assistance and FEMA mitigation grants. Emergency assistance provided under 42 U.S.C. §§ 5170a, 5170b, 5173, 5174, 5177, 5179, 5180, 5182, 5183, 5184, and 5192 would not be affected. Mitigation planning grants provided through the Pre-Disaster Mitigation (PDM) program, authorized under section 203 of the Stafford Act, 42 U.S.C. § 5133, would also continue to be available.

<sup>9</sup> State means the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands. 42 U.S.C. § 5122(4).

<sup>10</sup> Although States may shift between Standard and Enhanced Plans, for the purposes of analysis, FEMA assumes that the number of Enhanced Plans would remain at 10, recognizing that different States may make up the 10.

<sup>11</sup> 44 C.F.R. § 201.3(e)(3) (2011).

<sup>12</sup> 44 C.F.R. § 201.7 (2011).

<sup>13</sup> Per 44 C.F.R. § 201.7(d)(3) (2011), Tribal Mitigation Plans are not being considered for the Hazard Mitigation Grant Program (HMGP) increased funding and are subject to updates every 5 years.

As stated previously, States currently submit Standard or Enhanced Plan updates, at a minimum, every 3 years. However, under the proposed rule, States would submit mitigation plan updates, at a minimum, every 5 years. This results in a reduction of 2 plan submissions<sup>14</sup> over a 15 year period per State. Cumulatively, as shown in Table 1, this results in a reduction of 112 plan updates<sup>15</sup> over 15 years.

**Table 1: 15 Year Cumulative State Plan Update Schedule (5 Year Cycle)**

Year	Baseline # of Plan Updates (3 year cycle)	Proposed Rule # of Plan Updates (5 year cycle)	
1	56	56	
2	0	0	
3	0	0	
4	56	0	
5	0	0	
6	0	56	
7	56	0	
8	0	0	
9	0	0	
10	56	0	
11	0	56	
12	0	0	
13	56	0	
14	0	0	
15	0	0	
<b>Total</b>	<b>280</b>	<b>168</b>	<b>Difference (-)</b>
# of Standard Plans	230	138	92
# of Enhanced Plans	50	30	20

### Mitigation Plan Unit Costs

The cost to update a State’s Mitigation Plan is unique to that respective State. However, for the purposes of this analysis, FEMA uses an average Mitigation Plan Update Unit Cost for Standard and Enhanced Plans to estimate the total cost savings of the proposed rule.

Although, not all States have submitted mitigation plan related grant applications, FEMA uses historical mitigation plan grant data<sup>16</sup> to estimate a Standard Plan update and Enhanced Plan update average cost. Many of such plans include additional improvements beyond a simple mitigation plan update (i.e. development of web portals). Although such plan improvements are valuable and encouraged; for the

<sup>14</sup> Reduction in Plans Submissions = (15 years ÷ 3 updates per year)-(15 years ÷ 5 updates per year) = 2 plans.

<sup>15</sup> Total Reduction in Plan Submission = Reduction in Plans per State (2) x Number of States (56) = 112 plans.

<sup>16</sup> FEMA uses grant applications from the HMGP and PDM that meet the following criteria: includes the State Multi-hazard Mitigation Plan “type” designation, obligated, closed, or approved “status”, “project amount” not equal to zero, and appear to include State Mitigation Plan update information.

purposes of this analysis, FEMA, where possible, adjusted project award request amounts by separating out those costs not directly related to mitigation plan updates.<sup>17</sup> Based on these adjusted values, FEMA estimates a Standard Plan update unit cost of \$205,000 and an Enhanced Plan update unit cost of \$524,000.<sup>18</sup> As part of the analysis, FEMA also includes a possible Low Plan Update Unit Cost by decreasing the Standard and Enhanced Plan update unit cost by 50 percent and a High Plan Update Unit cost by increasing the Standard and Enhanced Plan update unit costs by 50 percent. FEMA requests comments on these estimated plan update unit costs.

**Table 2: State Mitigation Plan Update Unit Costs**

State Plan Type	Low Plan Update Unit Cost (-50%)	Mitigation Plan Update Unit Cost	High Plan Update Unit Cost (+50%)
Standard Plan Update	\$102,500	\$205,000	\$307,500
Enhanced Plan Update	\$262,000	\$524,000	\$786,000

### State Cost Savings

Analogous to the cost to update a State's Mitigation Plan being unique, so too are the cost savings associated with the reduction in the number of updates. To calculate cost savings over 15 years, FEMA first separates the 112 reduction in updates between Standard and Enhanced Plans. As discussed previously, FEMA assumes it would receive 46 Standard Plan updates and 10 Enhanced Plan updates, at the end of each update cycle, for the duration of the analysis. Applying this distribution to the 112 reduction in plans results in a reduction of 92 Standard Plan updates<sup>19</sup> and 20 Enhanced Plan updates<sup>20</sup> over 15 years. Next, as presented in Table 3, FEMA multiplies the reduction in updates by each plan update unit cost for an undiscounted total cost savings, over 15 years, of approximately \$29,300,000.<sup>21</sup> Using the same methodology, the resulting low and high State cost savings estimates are approximately \$14,700,000 and \$44,000,000, respectively.<sup>22</sup> For discounted figures over a 15-year time period at discount rates of 7 percent and 3 percent, refer to Appendix A.

<sup>17</sup> Despite FEMA's attempts to separate out improvements not directly related to plan updates, the adjusted project award amounts likely still represent a higher cost than the true average mitigation plan update costs.

<sup>18</sup> Standard and Enhanced Plan update unit costs were rounded to the nearest thousand. Standard Plan grant awards ranged from \$7,412 to \$602,759. Enhanced Plan grant awards ranged from \$60,331 to \$2,739,773.

<sup>19</sup> Reduction in Standard Plans = (46 Standard plans / 56 total plans) x 112 reduction in total plans = 92.

<sup>20</sup> Reduction in Enhanced Plans = (10 Enhanced plans / 56 total plans) x 112 reduction in total plans = 20.

<sup>21</sup> State Cost Savings was rounded to the nearest hundred thousand.

<sup>22</sup> Low and High State Cost Savings were rounded to the nearest hundred thousand.

**Table 3: State Cost Savings Over 15 Years**

State Plan Type	Reduction in Plan Updates <sup>1</sup>	Plan Update Unit Cost			State Cost Savings		
		(-50%)	Primary	(+50%)	Low	Primary	High
Standard Plan Update	92	\$102,500	\$205,000	\$307,500	\$9,430,000	\$18,860,000	\$28,290,000
Enhanced Plan Update	20	\$262,000	\$524,000	\$786,000	\$5,240,000	\$10,480,000	\$15,720,000
<b>Total</b>	<b>112</b>				<b>\$14,670,000</b>	<b>\$29,340,000</b>	<b>\$44,010,000</b>

1- Reduction in Plan Updates is the decrease in updates per State multiplied by the total number of Standard or Enhanced Plans.

### Federal Cost and Cost Savings

The Federal Government, specifically FEMA, would also be impacted by the proposed rule. State Mitigation Plans can be large documents covering many different areas, types of hazards, and aspects of mitigation planning and implementation. One cost associated with the reduction in plan updates is a diminished opportunity for FEMA to review mitigation plans that reflect the most current changes in State development, progress in mitigation efforts, and/or priorities. On-the-other-hand, FEMA would receive a level of cost savings due to the decreased number of plans it would review.

FEMA’s review of State Mitigation Plans can be a lengthy process which includes a 16 page Standard State Hazard Mitigation Plan Review Crosswalk, plus an additional 6 page crosswalk for Enhanced Plans.<sup>23</sup> The reduction in the number of plans FEMA reviews corresponds with the reduction in the number of State Mitigation Plan updates submitted to FEMA. To estimate the accompanying cost savings, FEMA calculates a low, primary, and high Federal Review Unit Cost, which is then multiplied by the reduction in plan updates.

FEMA subject matter experts, who work with mitigation plans, estimate that it would take, on average, between 80 to 200 hours, with a primary estimate of 120 hours, for a federal reviewer<sup>24</sup> to review either a Standard Plan or Enhanced Plan update. To estimate the low, primary, and high Federal Review Unit Cost, FEMA multiplies the hours per federal plan review by a federal reviewer fully loaded wage rate<sup>25</sup> of

<sup>23</sup> Standard and Enhanced State Hazard Mitigation Plan Review Crosswalk templates can be found in FEMA’s State Multi-Hazard Mitigation Planning Guidance (Mitigation Planning “Blue Book”) <http://www.fema.gov/library/viewRecord.do?id=3115>.

<sup>24</sup> FEMA anticipates that a regional mitigation planner lead/senior planner (community planner or community planner specialist), or a team of such planners, would complete State Mitigation Plan reviews. However, depending on the specifics of a plan, other specialists (i.e. Dam Safety Engineer, Regional Environmental Officer, Hurricane Program Manager, Floodplain Management & Insurance Specialist, Coastal Engineer, Physical Scientist, etc.) may also be brought in to assist.

<sup>25</sup> FEMA estimates the equivalent of a General Schedule (GS) 13 Step 1 employee would review mitigation plan updates. Per the Office of Personnel Management (OPM) GS system, the base GS 13 Step 1 wage rate is \$34.34 [http://www.opm.gov/oca/12tables/pdf/gs\\_h.pdf](http://www.opm.gov/oca/12tables/pdf/gs_h.pdf) (retrieved 4/5/2012) which is then multiplied by 1.4 (an increase of 40 percent) to account for benefits which results in a federal reviewer fully loaded wage rate of \$48.08. The federal reviewer fully loaded wage rate does not take into account locality pay and is rounded to the nearest cent.

\$48.08 per hour. The resulting Federal Review Unit Cost ranges from \$3,846 to \$9,616 with a primary estimate of \$5,770 per update, as seen in Table 4.<sup>26</sup>

**Table 4: Federal Review Unit Costs**

Federal Review of Plans (hours)			Federal Reviewer Wage	Federal Review Unit Cost		
Low	Primary	High		Low	Primary	High
80	120	200	\$48.08	\$3,846	\$5,770	\$9,616

To calculate the amount of Federal Cost savings over 15 years, as shown in Table 5, FEMA multiplies the Reduction in Plan Updates (112) by the low, primary, and high Federal Review Unit Cost. The resulting cost savings ranges from approximately \$431,000 to \$1,077,000 with a primary estimate of approximately \$646,000.<sup>27</sup>

**Table 5: Federal Cost Savings Over 15 Years**

Reduction in Plan Updates <sup>1</sup>	Federal Review Unit Cost			Federal Cost Savings		
	Low	Primary	High	Low	Primary	High
112	\$3,846	\$5,770	\$9,616	\$430,752	\$646,240	\$1,076,992

1- Reduction in Plan Updates is the decrease in updates per State multiplied by the total number of Standard or Enhanced Plans.

### Total Mitigation Plan Update Costs Savings

The proposed rule's predominate impact is a decrease in existing burden or cost savings. Based on the preceding calculations, the proposed rule's total cost savings, over 15 years, is approximately \$30,000,000, as shown in Table 6.<sup>28</sup>

**Table 6: Total Cost Savings Over 15 Years**

State Cost Savings			Federal Cost Savings			Total Cost Savings		
Low	Primary	High	Low	Primary	High	Low	Primary	High
\$14,670,000	\$29,340,000	\$44,010,000	\$430,752	\$646,240	\$1,076,992	\$15,100,752	<b>\$29,986,240</b>	\$45,086,992

### Transfer Cost Savings

FEMA has established a number of grant programs that States may use to help defray the cost of updating their mitigation plans. However, grant awards are not guaranteed and may be subject to high

<sup>26</sup> Low, primary, and high Federal Review Unit Costs were rounded to the nearest dollar.

<sup>27</sup> The Federal Cost Savings was rounded to the nearest thousand.

<sup>28</sup> The Primary Total Cost Savings was rounded to the nearest hundred thousand.

variability based on available funding. In addition, the proposed rule does not directly impact a State’s choice to apply for update assistance grants, and some States do not apply for grant funding to assist with plan updates. Nonetheless, FEMA uses historical grant data to estimate that 43 percent of States would likely receive grant funds to update their Standard Plans and 13 percent would likely receive grant funds to update their Enhanced Plans.<sup>29</sup> To estimate the reduction in Federal transfers, as shown in Table 7, FEMA multiplies the percentage of States that are historically awarded grants by the typical Federal share<sup>30</sup> of project requests (75 percent) by the 15 year State Cost Savings from Table 3.

**Table 7: 15 Year Reduction in Federal Transfers**

State Plan Type	State Cost Savings			% Awarded Grants	Typical Federal Share	Reduction in Federal Transfers <sup>1</sup>		
	Low	Primary	High			Low	Primary	High
Standard Plan Update	\$9,430,000	\$18,860,000	\$28,290,000	43%	75%	\$3,041,175	\$6,082,350	\$9,123,525
Enhanced Plan Update	\$5,240,000	\$10,480,000	\$15,720,000	13%	75%	\$510,900	\$1,021,800	\$1,532,700
<b>Total</b>	<b>\$14,670,000</b>	<b>\$29,340,000</b>	<b>\$44,010,000</b>			<b>\$3,552,075</b>	<b>\$7,104,150</b>	<b>\$10,656,225</b>

1- Reduction in Federal Transfers = (Percent Awarded Grants x Typical Federal Share) x 15 Year State Cost Savings.

The resulting estimated impact on Federal transfers is approximately \$7,100,000<sup>31</sup> over 15 years.

## Benefits

There are numerous benefits of the proposed rule. First, it would align the State Mitigation Plan update cycle with the Local and Tribal Mitigation Plan update cycles. This would provide States more time to coordinate local planning efforts, provide technical assistance to local communities, and implement projects identified in the State Mitigation Plan. Second, it would provide greater flexibility for States to submit their State Mitigation Plan updates. Third, the proposed rule would provide a cost savings for those submitting Standard or Enhanced Plan updates, as well as to the Federal Government as described in the Cost and Cost Savings section. These cost savings could then be shifted to other means of increasing resilience and reduction of the Nation’s risk to natural hazards. For instance, States may be able to implement additional mitigation actions identified in their respective plans or continue to build partnerships and capacity through increased delivery of training and technical assistance to support Local and Tribal Mitigation Plan development, update, and implementation.

<sup>29</sup> Percent of States historically awarded grants is based on HMGP and PDM grant awards received between 2008 and 2010.

<sup>30</sup> Section 404 of the Stafford Act (42 U.S.C. § 5170c) states that the President may contribute up to 75 percent of the cost of hazard mitigation measures.

<sup>31</sup> The estimated impact on Federal transfers was rounded to the nearest hundred thousand.



## Comparison of Cost and Benefits

The proposed rule would reduce the frequency of Standard and Enhanced Plans by extending the update requirement from a minimum of 3 years to a minimum of 5 years. This would reduce the number of required plans per State over 15 years by two. FEMA estimates this would result in a State Cost Savings of approximately \$29,300,000.<sup>32</sup> The proposed rule would also impact the Federal Government by reducing FEMA's opportunity to evaluate any changes to a State's mitigation plan via a plan review. However, the reduction in plan update frequency would also result in an estimated Federal Cost Savings of approximately \$646,000 due to a reduction in the number of mitigation plans reviewed.<sup>33</sup> Thus, as shown in Table 6, FEMA estimates the proposed rule's total quantified net savings to society as \$30,000,000.<sup>34</sup> Discounted at 7 percent, the total quantified savings to society is approximately \$18,800,000 as seen in Appendix A (Table 13).

In addition to the cost savings identified above, benefits of the proposed rule include greater flexibility for States to update their mitigation plans, as well as an alignment with the Local and Tribal Mitigation Plan update cycle. Furthermore, the reduced opportunity for FEMA to evaluate State changes to their mitigation plans could likely be addressed via alternate means; for instance, through existing stakeholder relationships, at little to no additional cost.

Based on the above analysis, FEMA has determined that this is not an economically significant rulemaking within the definition of Executive Order 12866, as annual costs or benefits to all parties do not surpass the \$100 million threshold in any year. Given these findings, FEMA supports the proposed change in the frequency of the update requirement based on the approximate \$30.0 million savings to society over 15 years.

## Alternatives

### Alternative 1 - No Action

Under the no action alternative, no regulatory changes would occur and States would continue to submit State Mitigation Plan updates every 3 years. There are no incremental cost changes associated with this alternative. However, this alternative would not address stakeholder concerns about the burdens placed on State governments.

### Alternative 2 - Annual Mitigation Plan Updates

As an alternative to the proposed rule, FEMA considered requiring mitigation plan updates annually. As discussed previously, States currently submit State Mitigation Plan updates at least every 3 years. However, under this alternative, States would submit their plans every year. This would increase the

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<sup>32</sup> The State Cost Savings was rounded to the nearest hundred thousand.

<sup>33</sup> The Federal Cost Savings was rounded to the nearest thousand.

<sup>34</sup> The net savings to society was rounded to the nearest hundred thousand. Net Savings = State Cost Savings + Federal Cost Savings = \$29,340,000 + \$646,240 = \$29,986,240.

number of plan updates per State by 10 over 15 years. Cumulatively, as shown in Table 8, this results in an increase of 560 plan updates.

**Table 8: 15 Year Cumulative State Plan Update Schedule (Annual Plan Updates)**

Year	# of Plan Updates (3 year updates)	# of Plan Updates (1 year updates)	
1	56	56	
2	0	56	
3	0	56	
4	56	56	
5	0	56	
6	0	56	
7	56	56	
8	0	56	
9	0	56	
10	56	56	
11	0	56	
12	0	56	
13	56	56	
14	0	56	
15	0	56	
<b>Total # of Plan</b>	<b>280</b>	<b>840</b>	<b>Difference (+)</b>
# of Standard Plans	230	690	460
# of Enhanced Plans	50	150	100

Using the same methodology applied in the Cost and Cost Savings section above, FEMA estimates that States would submit an additional 460 Standard Plan updates and 100 Enhanced Plan updates at a unit cost of \$205,000 per Standard Plan and \$524,000 per Enhanced Plan. The total State Cost Increase<sup>35</sup>, over 15 years, would be \$146,700,000. FEMA would also experience a corresponding increase in the number of mitigation plans it would review. Using the primary Federal Review Unit Cost<sup>36</sup> estimate of \$5,770 calculated in the Cost and Cost Savings section, the resulting Federal cost increase is \$3,231,200.<sup>37</sup> The Total Cost Increase over 15 years of this alternative is approximately \$149,900,000 as shown in Table 9.<sup>38</sup>

<sup>35</sup> Total State Cost Increase = (460 Standard Plan updates x \$205,000) + (100 Enhanced Plan updates x \$524,000) = \$94,300,000 + \$52,400,000 = 146,700,000.

<sup>36</sup> Federal Review Unit Cost = (120 hours per review x \$48.08 per hour) = \$5,770 (rounded to the nearest dollar).

<sup>37</sup> Federal Cost Increase = 560 plan updates x \$5,770 = \$3,231,200.

<sup>38</sup> The Total Cost Increase was rounded to the nearest hundred thousand.

**Table 9: Total Cost Increase Over 15 Years (Annual Plan Updates)**

State Plan Type	Change in Updates <sup>1</sup>	State Cost Increase	Federal Cost Increase	Total Cost Increase
Standard Plan Update	460	\$94,300,000	\$2,654,200	\$96,954,200
Enhanced Plan Update	100	\$52,400,000	\$577,000	\$52,977,000
<b>Total</b>	<b>560</b>	<b>\$146,700,000</b>	<b>\$3,231,200</b>	<b>\$149,931,200</b>

1- Change in Updates is the change in State updates multiplied by the number of plans.

This alternative would provide timely information on the most current changes in State development, progress in mitigation efforts, and/or priorities. However, this alternative would increase the cost of mitigation planning by approximately \$149,900,000<sup>39</sup> over 15 years. In addition, this alternative would provide limited time to advance mitigation efforts identified in each State’s respective plan. Therefore, so as not to impose additional costs on States, FEMA has chosen not to pursue this alternative.

**Alternative 3 – 5 Year Update with Annual Status Reporting Requirement**

Another alternative to the proposed rule FEMA considered was to change the State Mitigation Plan update requirement from 3 to 5 years, similar to the proposed option, but also add an annual reporting requirement. Such reporting<sup>40</sup> would not be as extensive as a plan update, but would provide FEMA useful information on each State’s progress towards meeting its mitigation goals outlined in their respective plans. FEMA assumes that much of the information used to develop a State’s annual status report would already be captured as part of the State’s ongoing mitigation plan update activities. FEMA also assumes that the equivalent to an Urban and Regional Planner, at a loaded wage rate of \$45.33<sup>41</sup>, would prepare a State’s report and estimates that its preparation would take approximately 8 hours. FEMA also assumes a federal reviewer, as identified previously, would spend 2 hours reviewing each State’s annual status report. The total annual status reporting cost over 15 years, as show in Table 10, is approximately \$386,000.<sup>42</sup>

<sup>39</sup> The Total Cost Increase was rounded to the nearest hundred thousand.

<sup>40</sup> An example of annual reporting could include a letter from the State (less than 5 pages, but could include attachments at the State’s discretion) providing an overview of the activities undertaken that year.

<sup>41</sup> The Urban and Regional Planner (Standard Occupational Classification 19-3051) loaded wage rate of \$45.33 is calculated using the Bureau of Labor Statistics 2011 mean hourly wage of \$32.38 times a 1.4 multiplier, to account for benefits, rounded to the nearest cent. Retrieved 4/4/12 from <http://www.bls.gov/oes/current/oes193051.htm>

<sup>42</sup> The Total Annual Status Reporting Cost was rounded to the nearest thousand.

**Table 10: Annual Status Reporting Burden Over 15 Years**

Entity	Hours per Report	Loaded Wage <sup>1</sup>	Report Unit Cost <sup>2</sup>	# of Reports <sup>3</sup> (over 15 years)	Total Annual Status Report Costs
State	8	\$45.33	\$363	840	\$304,920
Federal	2	\$48.08	\$96	840	\$80,640

**Total** **\$385,560**

1- FEMA assumes an Urban and Regional planner (SOC 19-3051) would prepare a State's annual report and that a GS 13 Step 1 Federal employee would review annual reports submitted by States.

2- Report Unit Cost is rounded to the nearest whole dollar.

3- # of Reports is calculated by multiplying the number of "States" with Enhanced Plan and Standard Plans by 15 years.

Since both the proposed option and this alternative would change mitigation plan update requirements from 3 to 5 years, the difference between them is simply the Total Annual Status Report Cost. Relative to the baseline of 3 year updates, this alternative's cost savings is \$29,600,680.<sup>43</sup> This is \$385,560 less than the proposed option's total cost savings. Therefore, despite an annual status reporting requirement potential to address FEMA's concerns about FEMA's diminished opportunity to review mitigation plans, FEMA has chosen not to pursue this alternative, so as to not place the burden associated with mandatory annual status reporting on States.

## Retrospective Evaluation

In 72 Fed. Reg. 61,552 (Oct. 31, 2007), FEMA published the Hazard Mitigation Planning and Hazard Mitigation Grant Program Final Rule (2007 Mitigation Planning Final Rule) whose supporting analysis included a number of assumptions related to Standard and Enhanced Mitigation Plans. Some of those assumptions have simply been updated in this analysis, while others have dramatically changed. The following is an overview of those changes.

### Population

First, the 2007 Mitigation Planning Final Rule identified a total of 91 State Mitigation Plans subject to the 3 year update requirement, which included all 50 States, District of Columbia, 7 U.S. territories, and 33 Indian Tribal Governments. However, per the Stafford Act's current definition of "State", only 5 U.S. territories are identified. In addition, the Flood Mitigation Grants and Hazard Mitigation Planning Final Rule<sup>44</sup> published September 16, 2009 finalized the addition of specific Tribal mitigation plan provisions under 44 C.F.R. § 201.7 (2011), separate from State and local provisions. As a result, 56 "States" were identified as the impacted population<sup>45</sup> and utilized in the above analysis.

<sup>43</sup> Alternative 3 cost savings over 15 years = proposed options 15 year cost savings – annual reporting costs over 15 years = \$29,986,240 - \$385,560 = \$29,600,680.

<sup>44</sup> 74 Fed. Reg. 47,471 (Sept. 16, 2009).

<sup>45</sup> Although Indian Tribal Governments can choose to submit plans that meet the Enhanced State Mitigation Plan criteria identified in 44 C.F.R. § 201.5 (2011) which includes a 3 year update cycle; to date no Tribes have submitted Tribal Mitigation Plans meeting the criteria identified in 44 C.F.R. § 201.5 (2011), but instead follow the update cycle identified in 44 C.F.R. § 201.7(d)(3) (2011) and therefore have not been included in the impacted population.

## Period of Analysis & Distribution of Updates

The 2007 Mitigation Planning Final Rule estimated that 31 State Mitigation Plans would be updated per year. Under the NPRM's analysis, the update cycle is evaluated over 15 years and assumes that all plan updates occur in the same year. The 2007 Mitigation Planning Final Rule also estimated 3 Enhanced Plan updates per year and assumed that 3 States per year would submit newly Enhanced Mitigation Plans as part of their update. However, FEMA has not realized this level of transition from Standard to Enhanced Plans. As such, the NPRM's analysis assumes a static value of 10 Enhanced Plan updates over the 15 years of the analysis, with the understanding that States may shift between Standard and Enhanced Plans.

## Mitigation Plan Unit Cost

The 2007 Mitigation Planning Final Rule used the median hourly wage of \$26.31 for Urban and Regional Planners<sup>46</sup>, times 30 percent to account for benefits, for a fully loaded hourly wage of \$34.20<sup>47</sup>. This wage rate was then multiplied by the number of hours it would take States to update their mitigation plans. The 2007 Mitigation Planning Final Rule estimated that Standard and Enhanced Plan updates would take 320 hours to complete. This resulted in a 2007 Mitigation Plan Update Unit Cost<sup>48</sup> of \$10,944.

However, the NPRM's analysis applies a different methodology to estimate a Standard and Enhanced Plan update unit cost. FEMA uses historical mitigation plan grant data<sup>49</sup>, adjusted, where possible, to subtract out costs not directly related to plan updates, to estimate a Standard Plan update and Enhanced Plan update average cost. Based on these adjusted values, FEMA estimates a Standard Plan update unit cost of \$205,000 and an Enhanced Plan update unit cost of \$524,000.<sup>50</sup>

## Cost Comparison<sup>51</sup>

The 2007 Mitigation Planning Final Rule estimated an annual economic impact of approximately \$46,000,000 of which \$339,264 was attributed to Standard Plan updates<sup>52</sup> and \$82,080 was attributed to Enhanced Plan updates and upgrades<sup>53</sup>. Subtracting out Standard to Enhanced Plan upgrades results in a total annual update cost<sup>54</sup> of \$404,928 and a 15 year cost of \$6,073,920.

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<sup>46</sup> Standard Occupation Classification 19-3051.

<sup>47</sup> The fully loaded hourly wage rate was rounded to the nearest cent.

<sup>48</sup> 2007 Mitigation Plan Update Unit Cost = urban and regional planner fully loaded hourly wage (\$34.20) x time to update a mitigation plan (320 hours) = \$10,944.

<sup>49</sup> FEMA uses grant applications from HMGP and PDM that meet the following criteria: State Multi-hazard Mitigation Plan "type" designation, obligated, closed, or approved "status", "project amount" not equal to zero, and appear to include State Mitigation Plan update information.

<sup>50</sup> Standard and Enhanced Plan update unit costs were rounded to the nearest thousand.

<sup>51</sup> Cost comparison figures only account for costs incurred by States; Federal costs are not included.

<sup>52</sup> 2007 Annual Standard Plan Update Cost = 31 plans per year x 320 hours per plan x \$34.20 per hour = \$339,264.

<sup>53</sup> 2007 Annual Enhanced Plan Update and Upgrade Cost = ((3 plans per year x 480 hours per update & upgrade) x \$34.20 per hour) + ((3 plans per year x 320 hours per update) x \$34.20 per hour) = \$49,248 + 32,832 = \$82,080.

<sup>54</sup> 2007 Total Annual Update Cost = \$339,264 + \$82,080 - ((3 plans x 160 additional hours per upgrade) x \$34.20 = \$421,344 - \$16,416 = \$404,928.

Applying the modifications identified above (population, period of analysis, distribution of updates, and mitigation plan unit cost) the 15 year baseline (3 year update cycle) State update cost<sup>55</sup> is \$73,350,000. This \$67,276,080 increase represents the change in mitigation plan update costs, over 15 years, resulting from the identified modifications. The 15 year proposed (5 year update cycle) State update cost<sup>56</sup> is \$44,010,000. This reduction (\$29,340,000)<sup>57</sup> is a result of the shift from a 3 year update cycle to a 5 year update cycle.

## Initial Regulatory Flexibility Analysis

In accordance with the Regulatory Flexibility Act (5 U.S.C. §§ 601-612), FEMA evaluated whether the proposed rule would have a significant economic impact on a substantial number of small entities. The term “small entities” comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000.

As the proposed rule would only impact States, which are not considered small entities<sup>58</sup>, FEMA does not anticipate the proposed rule would have a significant economic impact on a substantial number of small entities. However, if any small entities were to be impacted, FEMA expects such entities would experience similar cost savings as those described in the Cost and Cost Savings section. In addition, as the submission of mitigation plans and updates is voluntary, a small entity may choose not to submit a plan or update if it determines that such a submission is not, or no longer, cost effective, thereby eliminating any costs associated with plan or update submission.

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<sup>55</sup> 15 Year Baseline State Update Cost = (230 Standard Plan updates x Standard Plan update unit cost [\$205,000]) + (50 Enhanced Plan updates x Enhanced Plan update unit cost [\$524,000]) = \$73,350,000.

<sup>56</sup> 15 Year Proposed State Update Cost = (138 Standard Plan updates x Standard Plan update unit cost [\$205,000]) + (30 Enhanced Plan updates x Enhanced Plan update unit cost [\$524,000]) = \$44,010,000.

<sup>57</sup> Reduction due to change in update cycle = baseline State update cost – proposed State update cost = \$73,350,000 - \$44,010,000 = \$29,340,000.

<sup>58</sup> 5 U.S.C. § 601 (5) definition of “small governmental jurisdiction” does not include States.

## Appendix A: Analysis Using Discount Rates of 3 Percent and 7 Percent

For the purposes of analysis, FEMA assumes that all plan updates occur in the same year. As stated previously, FEMA estimates 46 Standard Plan updates with a unit cost of \$205,000 and 10 Enhanced Plan updates with a unit cost of \$524,000 over the course of the analysis. The resulting one year cost for plan updates is \$14,670,000 (46 Standard Plan updates x \$205,000 + 10 Enhanced Plan updates x \$524,000). FEMA also estimates a primary Federal unit cost of \$5,770 to review such plan updates for a one year cost of \$323,120 (56 plan updates x \$5,770). The resulting undiscounted cost in a given year when all plan updates are submitted is approximately \$15,000,000 (14,670,000 + \$323,120 = \$14,993,120).

Table 11 shows the resulting undiscounted costs under the baseline 3 year review cycle as well as the proposed rule's 5 year cycle. As seen in the table, the estimated 15 year undiscounted cost of plan updates every 3 years is approximately \$75 million and the estimated 15 year undiscounted costs of plan updates every 5 years is approximately \$45 million. The resulting undiscounted cost savings of the proposed rule is approximately \$30 million.

**Table 11: Undiscounted Plan Update Costs Over 15 Years (in millions of dollars)**

Year	Baseline (3 year cycle)	Proposed Rule (5 year cycle)	
2013	\$15.0	\$15.0	
2014	\$0.0	\$0.0	
2015	\$0.0	\$0.0	
2016	\$15.0	\$0.0	
2017	\$0.0	\$0.0	
2018	\$0.0	\$15.0	
2019	\$15.0	\$0.0	
2020	\$0.0	\$0.0	
2021	\$0.0	\$0.0	
2022	\$15.0	\$0.0	
2023	\$0.0	\$15.0	
2024	\$0.0	\$0.0	
2025	\$15.0	\$0.0	
2026	\$0.0	\$0.0	
2027	\$0.0	\$0.0	
<b>Total</b>	<b>\$75.0</b>	<b>\$45.0</b>	<b>\$30.0</b>

FEMA also calculated 15 year costs discounted at 3 percent and 7 percent. As seen in Table 12, the estimated 15 year cost of plan updates every 3 years discounted at 3 percent is approximately \$63.2 million. The estimated 15 year cost of plan updates every 5 years discounted at 3 percent is approximately \$39.1 million. The resulting cost savings of the proposed rule discounted at 3 percent is approximately \$24.1 million.

**Table 12: Plan Update Costs Discounted at 3 Percent Over 15 Years (in millions of dollars)**

Year	Discount Factor (3%)	Baseline* (3 year cycle)	Proposed Rule* (5 year cycle)	
2013	1	\$15.0	\$15.0	
2014	0.971	\$0.0	\$0.0	
2015	0.943	\$0.0	\$0.0	
2016	0.915	\$13.7	\$0.0	
2017	0.888	\$0.0	\$0.0	
2018	0.863	\$0.0	\$12.9	
2019	0.837	\$12.5	\$0.0	
2020	0.813	\$0.0	\$0.0	
2021	0.789	\$0.0	\$0.0	
2022	0.766	\$11.5	\$0.0	
2023	0.744	\$0.0	\$11.2	
2024	0.722	\$0.0	\$0.0	
2025	0.701	\$10.5	\$0.0	
2026	0.681	\$0.0	\$0.0	
2027	0.661	\$0.0	\$0.0	<b>Difference</b>
<b>Total</b>		<b>\$63.2</b>	<b>\$39.1</b>	<b>\$24.1</b>

\* - Discount values were calculated by multiplying one year Mitigation Plan Update cost savings \$14,993,120 by associated discount factor.



Table 13 shows 15 year costs discounted at 7 percent. The estimated 15 year cost of plan updates every 3 years discounted at 7 percent is approximately \$52.1 million. The estimated 15 year cost of plan updates every 5 years discounted at 7 percent is approximately \$33.3 million. The resulting cost savings of the proposed rule discounted at 7 percent is approximately \$18.8 million.

**Table 13: Plan Update Costs Discounted at 7 Percent Over 15 Years (in millions of dollars)**

Year	Discount Factor (7%)	Baseline* (3 year cycle)	Proposed Rule* (5 year cycle)	
2013	1	\$15.0	\$15.0	
2014	0.935	\$0.0	\$0.0	
2015	0.873	\$0.0	\$0.0	
2016	0.816	\$12.2	\$0.0	
2017	0.763	\$0.0	\$0.0	
2018	0.713	\$0.0	\$10.7	
2019	0.666	\$10.0	\$0.0	
2020	0.623	\$0.0	\$0.0	
2021	0.582	\$0.0	\$0.0	
2022	0.544	\$8.2	\$0.0	
2023	0.508	\$0.0	\$7.6	
2024	0.475	\$0.0	\$0.0	
2025	0.444	\$6.7	\$0.0	
2026	0.415	\$0.0	\$0.0	
2027	0.388	\$0.0	\$0.0	
<b>Total</b>		\$52.1	\$33.3	<b>Difference</b> \$18.8

\*- Discount values were calculated by multiplying one year Mitigation Plan Update cost savings \$14,993,120 by associated discount factor.