

# APPENDIX 6

## *Plan Maintenance*

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**NYS Hazard Mitigation Plan – Roadmap Activities.....pg. 2-8**



## NYS Hazard Mitigation Plan – Roadmap Activities (Final) as of 12/12/13

ELEMENT	Plan Section	Activity	Start Date	Timeline
<b>6. Profiling Hazards</b>				
<i>Element B</i>				
The SHMP needs to document the impacts to State facilities and critical infrastructure from the most recent major disasters; specifically, Hurricane Sandy.	<b>Section 3</b>	Conduct an in-depth survey and analysis of State agencies and organizations to obtain detailed facility and critical infrastructure information related to impacts, damages, losses and mitigation opportunities from Hurricane Sandy.	1/2014	Ongoing in concert with FEMA
<i>Element C</i>				
Re-evaluate methodology used to calculate probabilities for future occurrences.	<b>Section 3</b>	<p><b>(Short-term priority)</b> Re-evaluate methodology for calculating probabilities of future occurrences (frequency and severity) for all hazards; i.e.; translate numerical probability percentage figures into categories that more clearly and realistically identify probabilities by county.</p> <ul style="list-style-type: none"> <li>• Review California and North Dakota Plans for examples.</li> </ul>	3/2014	1-2 month
<b>7. Assessing Vulnerability by Jurisdiction</b>				
<i>Element C</i>				
Enhance review of local plans to assess and integrate types of risks and assets	<b>Section 3</b>	During the local plan review process, conduct and summarize the content of local plans related to types of risks faced and types of assets found vulnerable.	1/2014	On-going– integrate into local plan review process



<i>Element D</i>				
ELEMENT	Plan Section	Activity	Start Date	Timeline
[Bullet 1] Continue to roll up information from local plans to track trends in development that impact vulnerability and provide a means of reducing risk to future development.	<b>Section 3</b>	During the plan maintenance process, extract information related to local development from local plan capability assessments; focus on physical development, construction activity, building codes, changes in development, anticipated development trends tracked by State, regional or metropolitan agencies and organizations.	1/2014	On-going-integrate into local plan review process
[Bullet 2] Develop additional detail related to development in most densely populated areas.	<b>Section 3</b>	Develop high-level discussion related to most densely populated areas and how development may be changing; coordinate with DEC (NFIP) and Dept. of State (Codes) to provide guidance on how municipalities may address this and offer targeted assistance in coordinating NYS Building Code and local floodplain law, where needed.	4/2014	1 month
<b>8. Assessing Vulnerability of State Facilities</b>				
<i>Element A</i>				
[Bullets 1-3] Provide a separate detailed description of the State fixed assets inventory project	<b>Section 3.1</b>	Provide a separate detailed summary of the State's plan for addressing how and what type of data will be obtained during the project (i.e., type of facilities and infrastructure, uses, construction and values of buildings and critical facilities), the project timeline, and the State's plan for addressing this requirement within the next 18 months. <sup>1</sup>	2/2014	1 month

<sup>1</sup> See Note following this table for text to be inserted in Section 3.0, p. 3.0-42



ELEMENT	Plan Section	Activity	Start Date	Timeline
<b>9. Estimating Potential Losses by Jurisdiction</b>				
<i>Element A</i>				
[Bullets 1 and 2] Review local plans to incorporate estimates provided in local risk assessments into the State's plan	<b>Section 3</b>	Capture estimated losses by jurisdiction from local risk assessments; or, alternately, consider estimating a percentage of past events associated with each hazard using a method similar to predicting probability, by extrapolating potential annual damages based on historic data. <ul style="list-style-type: none"> <li>• Review examples of State plans – Alabama provided a summary table of risk projections/loss estimates by county extracted from LHMPs for specific hazards, such as flood, hurricane, tornado and winds</li> <li>• [Bullet 2] Review and incorporate data that becomes available through Risk MAP to use new data such as FEMA-generated Annualized Loss Estimates for flooding.</li> </ul>	6/2014	6 months
<i>Element B (See also Element 9.A)</i>				
[Bullet 1] – extract loss information from local plans	<b>Section 3</b>	Except for hazards where Hazus data is used (flood, earthquakes, wind) estimate losses by jurisdiction using local plans as well as an independent analysis (structures and critical facility locations in hazard prone areas) to identify vulnerable structures and then determine a loss percentage to calculate loss.	6/2014	6 months



ELEMENT	Plan Section	Activity	Start Date	Timeline
[Bullet 2] Incorporate risk assessment information from the FEMA Average Annualized Loss Study	Section 3	Research Average Annualized Loss Study for all counties in the State and incorporate data in hazard sections for potential estimated losses by jurisdictions. Expand the review of local risk assessments and incorporate estimated future loss data by jurisdiction from local plans, by: <ul style="list-style-type: none"> <li>• Extracting Hazus findings for flood, high wind and earthquake from local plans.</li> <li>• Incorporating Average Annualized Loss (AAL) study data into the State plan</li> </ul>	6/2014	6 months
<i>Element C</i>				
Develop loss estimate analysis based on changes in development	Section 3	Once loss estimates are completed, and changes in development are better summarized, account for development changes within the loss estimates which are projected as a certain percentage.	1/2015	3 months
<b>10. Estimating Potential Losses of State Facilities</b>				
<i>Element A</i>				
[Bullets 1& 2] Survey State agencies for damage data from recent events to inform potential loss estimates. Calculate percentage of losses based on fixed asset inventory data [See also 6.B]	Section 3	<b>In current FEMA Planning Grant:</b> Collect information through survey of State and critical infrastructure agencies; develop estimation of losses (as a percentage of value lost in an event) for all hazards through data analysis, survey and/or scenario ( <b>TOP PRIORITY - must be addressed in current FEMA Planning Grant</b> )	6/2014	9 months
<b>13. Local Capability Assessment</b>				
<i>Element A</i>				



ELEMENT	Plan Section	Activity	Start Date	Timeline
Information can be extracted from local plans as reviewed to identify increases or decreases in local capabilities. <b>[See also Element 9.]</b>	<b>Section 4</b>	[Actions added to monitoring and evaluation tables, p. 6-6,7, 8 & 9] Analyze local capabilities from all available local plans to identify regulatory, technical or financial capabilities that could be used to implement mitigation policies and programs.	6/2014	6 months
<b>14. Mitigation Actions</b>				
<i>Element D</i>				
Develop narrative describing the link between mitigation strategies with the risk assessment needs to be made	<b>Section 4</b>	Develop a narrative explaining the rationale of identifying each type of mitigation activity and how it addresses an identified risk (e.g., generators are appropriate for critical facilities despite the short-term respite it provides), especially since there are a lot of “new projects” identified in this update.	2/2014	1 month
<b>16. Local Funding and Technical Assistance</b>				
<i>Element A</i>				
Develop narrative description of training/ technical assistance provided by State to local jurisdictions	<b>Section 5</b>	Prepare a narrative statement that details how the State contributes to mitigation planning training; and the improvement of mitigation planning overall	3/2014	1 month
<b>17. Local Plan Integration</b>				
<i>Element B</i>				
As part of the ongoing State review of local hazard mitigation plans, continue to incorporate content of local risk assessments into the SHMP.	<b>Section 5</b>	[Actions added to monitoring & evaluation tables, p. 6-6, 7, 8, & 9] Document local risk assessment information during on-going local plan review process and add information to the SHMP in the monitoring, evaluation and update cycle	1/2014	On-going—integrate into local plan review process
<b>19. Monitoring, Evaluating, and Updating the Plan</b>				



ELEMENT	Plan Section	Activity	Start Date	Timeline
Element C – [See 17. B above]		[Actions added to monitoring & evaluation tables, p. 6-6, 7, 8, & 9] As new plans are submitted and approved, review the content of local risk assessments and incorporate into the State’s plan during the monitoring, evaluation and update cycle.	1/2014	On-going–integrate into local plan review process

**Text inserted in Section 3.0 for Element 8.A (also references Element 6.B):**

The State of New York is taking steps to inventory its facilities and built assets to evaluate its risk from natural hazards. Initial efforts to inventory facilities under a FEMA Earthquake grant, employing State Fire Inspectors utilizing FEMA-developed software, were unsuccessful for a couple of reasons: after modifying the earthquake software to capture wind and flood, the number of questions to answer and data sets to provide became too time-consuming for State Fire Inspectors to complete during the course of their normal building inspections. Also, some inspectors felt that the “Integrated Rapid Visual Screening of Buildings” (IRVS) approach was best executed by architects or engineers. Finally, Fire Inspectors survey universities and all state office buildings on a rotating basis, which would leave a large part of the universe of state facilities without survey. After regrouping, and evaluating what we know about our risk from discussions with state agencies during Irene, Lee and Sandy response (and during the update of the State Hazard Mitigation Plan), DHSES coordinated with FEMA and decided on a two-prong approach:

- We would begin our survey at facilities that house children and adults with mental and/or physical challenges because:
  - A March 2009 fire in Wells, Herkimer County killed four residents of a group home who could not evacuate themselves, and injured a fifth resident and two staffers (see [www.nytimes.com/2009/03/22/nyregion/22fire.html? r=0](http://www.nytimes.com/2009/03/22/nyregion/22fire.html? r=0));
  - Such facilities are overseen by a small universe of state agencies, easing coordination on our first survey effort;
  - These facilities occur both as stand-alone buildings (residences) or campuses with several buildings; the latter will help inform subsequent survey efforts at various other campuses and complexes across the State.



- Having experienced Irene, Lee and Sandy, and traditionally citing water in its various forms as our most prevalent natural disaster, DHSES will poll State agencies in February 2014 to see if lives were lost, injuries occurred, or structures were damaged or destroyed in any of these three events;
  - From that we will ascertain whether there are inordinately high positive responses:
    - In specific counties or regions of the State;
    - Correlating to certain facility types or uses;
    - From certain agencies who may not have capacity to address mitigation deficits.
  - This will allow us to target assistance like site visits (with other agencies if needed), webinars, etc., to provide technical assistance and develop short- and long-term strategies and flesh out activities in anticipation of future funding opportunities.

The State will analyze risk from wind, flood and earthquake at all buildings surveyed, using hand-held software applications and FEMA's "Integrated Rapid Visual Screening of Buildings" (IRVS) to guide the process. This approach better achieves the State's goals because we will employ teams of contractors with training in architecture or engineering who can respond to each of the IRVS questions, and who can focus on priorities we establish rather than another agency's prescribed inspection schedule. Before teams conduct site visits, they will research available DFIRMs, State agency records (Office of General Services, the responsible agency's Main office and Regional Office capital facilities archives, etc.) and various online resources to gather relevant information regarding floodplain locations and relationships, construction type, etc., then fill the gaps with onsite visits and interviews. Data will be collated and analyzed in an initial screening, which will then determine which structures and facilities get a more in-depth analysis and possible assistance in developing mitigation strategies.

These two activities will run on parallel but independent tracks, and in close coordination with FEMA. (In fact, the survey effort was initiated with FEMA-sponsored training of the first architects and engineers occurring in Albany the week of December 9, 2013.) Once the initial group home survey has been complete we will analyze the results with FEMA to determine our ongoing survey strategy (e.g., by agency, region, facility type, year of construction, recent damage in declared disasters), and decide what tweaking, if any, is necessary moving forward to streamline the process and capture and collate all needed data.

DHSES will also decide with FEMA whether the results of the initial group home survey warrant revisions to the State Plan's description of hazards, analysis of risk, or the strategies and activities for key agencies. As noted above, subsequent survey strategies will be developed with FEMA's concurrence, and after each survey round we will revisit the Plan as noted above to see if changes are warranted, or if State agencies need targeted assistance.

