Testimony for the Record

Concerning the Hearing on September 13, 2016 Entitled:

Submitted to:
Senate Committee on Banking, Housing and Urban Affairs

Submitted by:
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The Association of State Floodplain Managers (ASFPM) is pleased to have the opportunity to comment on the Recommendations of the Technical Mapping Advisory Council’s 2015 Annual Report. ASFPM is a non-profit association of state and local officials as well as engineers, planners and other professionals who support those officials. The ASFPM has 17,000 members nationwide and 36 chapters that represent 41 states. The mission of ASFPM is the reduction of loss of life and property due to flooding.

As you may be aware, ASFPM had a representative on TMAC who contributed heavily to the annual report – Ms. Sally McConkey, head of the flood mapping program in the State of Illinois. ASFPM applauds the important work of the TMAC and is impressed by the amount of work it has accomplished in the past two years. Today we are writing to provide ASFPM’s perspective on the 2015 Annual Report.

Overall Comments on the Annual Report
Overall, ASFPM agrees with and supports most of the TMAC recommendations. However, there are a few recommendations that we are concerns with respect to their focus, intent, and relative priority among other recommendations.

The Importance of Program Goals and Metrics
Under Section 100216 of the 2012 Biggert-Waters NFIP Reform Act, the National Flood Mapping Program (NFMP) specifically requires FEMA to review, update, maintain, and publish maps with respect to all populated areas and areas of possible population growth within the 100 and 500-year floodplain; areas of residual risk and areas that could be inundated as a result of failure which are protected by levees, dams and other flood control structures; and the level of protection provided by such structures. There is a further requirement in the legislation to “establish or update flood risk zone data in all such areas with respect to rates of probable flood caused loss for the various flood risk zones for each area” that could be viewed as a requirement to undertake an refinement of the insurance rating. Finally there is a requirement to include relevant information which may be recommended by TMAC.

Recommendations #2 and #3 focus on the overall mapping program goals, priorities and metrics. ASFPM was disappointed that a clear path forward as to how FEMA’s mapping program, RiskMAP, could be transformed to more closely implement the required mapping elements of the NFMP authorized by Congress in 2012. Rather than a true transformation of the mapping program, Recommendations #2 and #3 focus on the vision, goals and metrics of FEMA’s previous and current mapping initiatives as well as an expanded vision on the use of risk assessments. While TMAC clearly has the authorization to make recommendations as to inclusions into the
NFMP, we think that recommendations addressing the basic requirements identified by Congress under the NFMP are significantly lacking. There is a failure to clearly articulate the mapping program’s goals, priorities and metrics. At a minimum, ASFPM believes that there should be program goals and metrics related to achieving the required mapping elements under the NFMP such as the total number of stream miles mapped in the nation.

The Priority and Importance of Hazard Identification
ASFPM appreciates the discussion (p. 4-25) of unmapped areas which identifies the need to still map 1.4 million miles of streams in addition to the over 650,000 miles of unverified and unknown miles that FEMA has previously mapped to some extent but that need evaluation and update. Also, ASFPM notes and appreciates a key finding of TMAC: “The method used to develop the deployment metric is easily misunderstood and can lead policymakers to believe that more of the Nation’s population is covered by modern flood maps than is actually the case. This over counting can lead to a belief that more of the Nation’s flood risk has been identified than is the case.” (p. 4-32). We note that the 2015 TMAC Future Conditions Report elaborates on this point further indicating: “If the metric is changed to be more reflective of the streams studied within a census block group, then it may more realistically illustrate that the country has flood hazard areas defined for only somewhere between 16 percent and 22 percent of all streams.”

The importance and necessity of providing accurate flood hazard information nationwide cannot be understated. Today unmapped floodplains are everywhere – from urban communities like Chicago where stormwater inundation areas are not mapped, to rapidly urbanizing suburbs where FEMA floodplains are not identified in places where new subdivisions are being built, to rural county areas where FEMA flood mapping usually doesn’t begin until a stream has 5-10 square miles of drainage area, to residual risk and failure inundation areas around levees and dams. They are not limited to remote areas with few inhabitants. ASFPM notes that Congress required the mapping of all areas of current and possible future population growth. From a land use perspective, areas of possible future population growth can exist anywhere where an owner has a legal right to develop. ASFPM further notes that TMAC, in its Future Conditions report, indicates that for the riverine environment the 100-year floodplain is projected to grow by about 45%, with 70% of the total growth due to climate change. Clearly the flood risk is changing and growing, even where flood hazards are currently mapped.

Consider the following real world scenario.

Cameron Chase is a 211 lot residential subdivision on 87.6 acres (circled in yellow below) in rapidly urbanizing western Licking County, Ohio. The subdivision is only 17 miles east of downtown Columbus, Ohio which has a metro area population of 2 million. A small creek with a drainage area approx. 766 acres (or less than 2 square miles), bisects the tract of land, flowing generally from the west to east. The problem, as can be seen below is that the FEMA identified floodplain doesn’t even begin until several thousand feet further downstream when the creek empties into another, larger creek. Luckily the county has regulatory standards above the NFIP minimums that require mapping of any watercourse on a tract of land being developed. The resulting floodplain (which was developed before any development could occur) had a maximum width of nearly 280 feet, and a maximum floodway width of over 100 feet.
The critical point is that there are thousands of subdivisions like Cameron Chase nationwide – developments that have recently occurred or will occur on small creeks and streams that FEMA has not identified because under the current mapping program they are a low priority as uninhabited cow pastures or corn fields. As a result, we are not mapping these areas, not getting ahead of development, and actually creating tomorrow’s flood problems.

Other impacts of not prioritizing the mapping these areas include:

- No application of land use, building or development standards to make buildings or other development safer
- Higher risk of inadequately sized infrastructure such as bridges or culverts that actually increase flood elevations
- No requirement to purchase flood insurance
- Homeowners and local officials frustrated when maps are later updated and showing a flood zone on them when, in fact, the flood risk already existed but was not identified

The priority for hazard identification is missing from the TMAC report. Instead language such as the following is included: “The suggestion is not that FEMA allocate a significant portion of its limited resources to studying and mapping stream miles across the Nation that are not currently mapped using modern methods but rather that
FEMA develop a goal to address these areas.” ASFPM strongly disagrees with such a statement and believes that the most important priority of FEMA’s current and future mapping program should be an accurate and comprehensive identification of the flood hazard accomplished by completing flood mapping for nation which includes converting (using engineering and not digitization) the remaining paper map inventory into modernized updated flood maps. This priority should be followed closely by reassessing already mapped areas.

The Role of Flood Risk Assessments
There are two primary recommendations that focus on flood risk assessments: Recommendation #10 which suggests the transition from identification of the 1% chance floodplain and BFEs for insurance rating purposes to a structure specific flood frequency determination and associated (multiple) flood elevations, and Recommendation #14 which suggests the transition to a flood risk assessment focus that is structure specific.

In both Recommendation #10 and #14, the implication is to transition from some current state, giving the reader the impression that we should no longer identify and map the 1% chance floodplain. Risk assessments cannot be performed without identifying the flood hazard and identifying the extent of the floodplain. In fact, a sub-bullet under Recommendation 14 indicates that “a necessary prerequisite for accurate flood risk assessments is detailed flood hazard identification. . .” In other words, we must continue with and prioritize hazard identification activities including updating the un-modernized inventory of mapped areas and identify areas that are not mapped as the foundation for any risk assessment.

It is easy to confuse the issue of structure based risk assessment with insurance rate setting. These are different issues. Accurate flood hazard information is the basis for insurance rate calculations, and ASFPM supports improvements in the process. What, then is the role and priority of FEMA or the federal government in risk assessment? In the case of Recommendation #10, as a provider of flood insurance, FEMA should overhaul its insurance rating system to be more precise for actuarial rating, possibly including new rating zones (such as a set of new zones for levees) and incorporating multi frequency hazard data that is generated by new flood studies. In the case of Recommendation #14, beginning role for FEMA is to ensure that data generated by its partners is can be readily incorporated in risk assessment tools. State, tribes and communities can and should participate in development of the data (this is in fact recommended on p. 4-71). However, the mapping program should not necessarily prioritize funding the of risk assessments until all of the hazard identification work has first been done the study area.

Bottom line, the flood hazard must be identified within reasonable accuracy parameters nationwide. This provides the foundation for improved insurance ratings and risk assessments. This should be the top priority and advance with a vision to improve insurance rating and risk assessment.

Thank you for considering the views of the Association of State Floodplain Managers. We would be glad to respond to any questions. Please contact Chad Berginnis, ASFPM Executive Director at cberginnis@floods.org or at 608-828-3000.