



# NEW YORK STATE FLOODPLAIN AND STORMWATER MANAGERS ASSOCIATION

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**SUBJECT:** Comments on DRAFT “Guide to Flood Maps” (FEMA 258)

Dear Ms. Montgomery:

The New York State Floodplain and Stormwater Managers Association is a statewide professional organization dedicated to reducing loss of life and property damage resulting from floods. As such, we are very concerned about the public’s perception of flood risk and how they respond to those risks. The Federal Emergency Management Agency flood hazard maps are a valuable tool for communicating information about flood hazards to the public, local officials, and other decision-makers. We are thus interested in the flood risk messages that are communicated in conjunction with the flood hazard information on the maps. The concept of risk includes both the hazard (probability and magnitude) and the potential consequences. Additional subjective factors (fear, uncertainty, sense of control, etc.) also play into how people prepare for and respond to risk. In light of these concerns about risk communication, we ask you to consider the following comments regarding the DRAFT “Guide to Flood Maps” document (FEMA 258).

Intended purpose. The stated objective of “Guide to Flood Maps” is to “assist map users in determining the level of risk posed to homes, businesses, and other structures and deciding what steps should be taken to reduce the risk...” However, the document focuses on interpreting the maps without promoting an understanding of the information presented. We propose that, in addition to describing the information on map products, FEMA 258 also include discussion of what that information means and how it can be used to reduce risk. Although the details are in other documents, the Guide could mention how the flood hazard information can be of value for developing family emergency plans, evaluating mitigation options, retrofitting existing structures, and other purposes.

What do the maps mean? Additional information is warranted to provide the reader with an improved understanding of what can and cannot be learned from flood hazard maps. The existing maps tend to give the simplified impression that flooding is possible within the Special Flood Hazard Area, but the risk is negligible or non-existent on the other side of the line. FEMA 258 should strive to dispel this misperception by including information about both the strengths and limitations of the maps. For example, a recent “effective date” does not necessarily mean that that all of the information on the map is based on recent analysis. FEMA should advise map users that the restudy date for a reach of river

may be highly relevant when using maps to assess risk, particularly in areas with old studies, significant watershed development, or new bridges. In addition, the maps are not intended to delineate all areas that might be subject to flooding, such as locations with anticipated flood depths less than one foot or unmapped rural streams. Hydraulic analyses are based on the assumption of unobstructed flow, so debris blockage can be expected to cause increased hazards not indicated on the maps. These limitations should be clearly stated. More than one-fourth of flood insurance claims occur outside of mapped Special Flood Hazard Areas – FEMA 258 should explain why.

Risk Communication. We welcome FEMA’s proposed shift of the mapping program to Risk Map. Although FEMA 258 is focused on using the existing map products (which are intended primarily for floodplain management and insurance rating), it could lay the groundwork for a shift toward risk-based information. For example, the document mentions that profiles in Flood Insurance Studies show elevations for multiple floods, but it fails to explain how this information can be used to evaluate risk. In the example given, the homeowner could be advised to determine the house elevation relative to the 10-percent-annual-probability flood. Likewise, a discussion of the impact of levees on flood risk would be beneficial. The level of protection and residual risk issues are more complicated than the black-or-white determination of whether a location is mapped as subject to the Base Flood. Since this document is being updated to incorporate new D-FIRM products, it could also include suggestions of how the GIS data layers can be used in conjunction with other digital mapping information for land use planning, establishing mitigation priorities, emergency response, etc.

Terminology. The Association of State Floodplain Managers (ASFPM) is promoting discussion among the nation’s flood professionals about the terminology that we use to communicate flood risks to the public (“Does Flood Terminology Matter?” by Larry A. Larson, CFM, News & Views, October 2009). As part of this shift toward more helpful terminology, we ask that FEMA stop referring to flood hazard maps as “flood maps.” Attached is an article about this terminology that was published in our Association’s newsletter and reprinted by ASFPM (summer 2009). We appreciate FEMA’s effort to discontinue references to the “100-year flood” and “100-year floodplain.” However, rather than calling it the one-percent-annual-chance flood, we suggest replacing the word chance with probability, which sounds more like an engineering determination (which it is) and less like luck. Please, participate in this effort to develop better terminology and discontinue the use of misleading terms.

Thank you for considering these suggestions and working to promote improved understanding and management of flood risks.

Sincerely,



Janet Thigpen, CFM  
Chair, Public Policy Committee

Cc: Association of State Floodplain Managers

## A Plea to Floodplain Managers:

**Please, stop talking about “flood maps!”** They are not maps of floods! The so-called “flood maps” cannot possibly depict the limits of any future flood, but the term somehow implies that they do. And when a real-world event behaves differently, people conclude that “the maps are wrong.” If they aren’t “flood maps,” what should we call them? The proper name is “Flood Insurance Rate Maps,” but insurance rating is only one of many uses. “Floodplain maps” is better. But the name I prefer is **“flood hazard maps.”**

And what about areas delineated on flood hazard maps? People generally recognize that if they are in “the flood zone,” they might flood (or if they’re in denial they claim that the map is wrong). But they also tend to conclude that areas on the other side of that line will remain high and dry. We, of course, know that the real world consists of many flood zones with varying risks. But how can we help the public increase their understanding of this? “Special Flood Hazard Area” doesn’t exactly roll off the tongue. “Regulated floodplain” is better. I propose that we start calling the various zones depicted on the maps **“flood hazard zones.”**

That brings me to a more difficult question: What should we call the model flood on which our regulations and insurance requirements are based? The term “100-year flood” is widely used and widely misunderstood. Any time part of the “100-year floodplain” gets flooded, some people conclude that it must have been a “100-year flood.” And if they think they’ve already had three “100-year floods” this year, they figure that the chances of another flood are really low (so they do nothing, when they should be acknowledging that they’re in a very high hazard zone). But what can we call it? I’ve tried the “1% probability flood,” but the public doesn’t grasp that. “Base flood” also fails to convey the message. Terms I sometimes use are **“regulatory flood”** and **“regulated floodplain.”** Do you have better suggestions?

As floodplain managers, we often bemoan the fact that the public has a poor understanding of flood risks. But maybe we share the blame by using inaccurate terminology. Let’s pay more attention to words we use and what those terms imply to people who don’t understand the complex issues associated with flood hazards. A shift in terminology is a small step, but it may provide a better foundation for other efforts to improve the public’s understanding of flood risks.

Thank you,  
Janet Thigpen, CFM