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LEVEE ASSESSMENT MAPPING PROCESS (LAMP) ASFPM COMMENTS—FINAL

GENERAL COMMENTS ON FLOOD MAPPING RESIDUAL RISK AREAS BEHIND LEVEES

As a matter of national policy, the NFIP must view levees and dams as temporary features that have temporary effects on the nation's floodplains. A levee which is designed to contain a given flood, such as the 100-year flood, will be overtopped by a larger flood and the damage from the larger event will be exceptionally larger if no mitigation measures apply behind the levee, and the federal taxpayer ends up footing the bill if flood insurance is not required. Even well designed, constructed and operated levees have the probability of overtopping or failing, with catastrophic consequences. As such, and since the NFIP pays claims for these larger flood events, those areas should be mapped, development standards required, and flood insurance required, with the expected damages considered in premium rates.

ASFPM concurs that it is important to address the concerns raised by the US Congress to recognize varying degrees of risks behind the nation's levees. Matching the mapping of those areas with appropriate regulations and insurance rates is key to helping property owners and citizens understand that not only is there residual flood risk behind levees, but that measures beyond the levee are needed to protect the property owner from risk to their family and property, and to make the community resilient to future flood disasters. While it will be costly to do such analyses, it will be important for the accuracy of the flood maps. As such, ASFPM recommends that FEMA proceed with its Interactive Stakeholder Engagement Process and Analysis of Levee Reaches. However, ASFPM urges FEMA to urgently pursue a revision to NFIP, on a parallel path, to establish a graduated residual risk zone designation to reflect the variable, but real risk in these areas. ASFPM further recommends that mapping of communities' map panels with levees might need to be postponed until the proposed new graduated residual risk zones become finalized and effective. This may be needed to fully respond to the concerns raised by the US Congress.

Communities in the nation are in desperate need of updated and accurate digital risk data, whether they have a levee or not. Having an accurate flood map so they know where flood risk exists in their community is the first step in reducing the loss of life and damages from flooding in their community. Given the limited funding allocated by US Congress for the NFIP mapping efforts, an excessive focus on levee analysis can further threaten the viability and effectiveness of ongoing flood risk mapping program for the 21,600+ NFIP participating communities. Therefore, ASFPM further recommends that only a limited portion of the NFIP mapping budget be designated for dealing with levee issues and that FEMA request that Congress allocate additional funding to specifically deal with the levee issues over the next several years.

ASFPM continues to strongly support added funding for FEMA flood mapping, which is the first essential step to help communities reduce flood risk. We urge FEMA to develop a new, realistic plan

and cost estimate for bringing our FP mapping into the 21st century as well as a system and cost for ongoing maintenance.

COMMENTS ON THE LAMP PROCESS

FEMA has done an admirable job with outreach/consultation procedure and segmentation/categorization of various levee reaches. However, ASFPM has a major concern regarding the proposed zone designation for levee segments, and for other issues surrounding the proposal.

- Flood risk is determined by two factors: the probability of flooding, multiplied times the consequences of the area being flooded. A levee addresses only the probability, but does nothing to reduce the consequences. A levee with a certain amount of development behind it has a certain risk. If the area behind the levee is allowed to have additional development, the risk increases, even if the levee continues to be properly maintained. This is why these areas need special consideration for future development and insurance, and is why levees should never be built to protect undeveloped land.
- FEMA is proposing Zone D for both Sound Reach and for Freeboard Deficient reach designation. However, Zone D is defined as an “area of undetermined flood risk”. Zone D does not carry a Special Flood Hazard Area (SFHA) designation and does not require flood reduction standards for development, nor does it require mandatory flood insurance for federally backed loans; thus it will promote and encourage inappropriate development in these areas that have residual flood risk, which exposes federal taxpayers to future disaster funding. This is a step backward from FEMA’s recognition as part of mapping process that there is residual flood risk behind all levees, and even greater flood risk behind non-accredited levee systems.
- It will be difficult, if not impossible to communicate risk for Zone D since it is identified as an area of unknown flood risk.
- In some instances, flood insurance premiums could be more costly for Zone D than for Zone A, which is problematic for those already claiming that at least some credit should be given for the levee.
- It appears that the same rate applies behind all classes of levees that are deficient, with no variation for the differences. If the intent is to provide variable credit for better levees, this seems contrary to that notion.
- Furthermore, Zone D does not allow the property owner to reduce their premium by taking mitigation measures such as elevation, etc., so there is no incentive for mitigation. This, combined with the absence of development standards will discourage any mitigation in these at risk areas, thus missing the opportunity to help citizens reduce their risk of flooding.
- ASFPM understands that FEMA chose the existing Zone D for these residual risk areas behind levees, (sound reach and freeboard-deficient reach) that have a higher flooding risk than behind an accredited levee, because using an existing zone classification would avoid the NFIP having to seek regulatory changes for new zone classifications. However, ASFPM believes it is important for the NFIP to avoid taking backward steps in protecting lives and reducing taxpayer costs for flood damages, and as such, the NFIP should first set a vision for mapping levees that recognizes these tenets:

- There is always residual risks associated with man-made structures such as levees
- The risk behind levees is not the same for all buildings and infrastructure behind levees—there is gradually varying risk depending on the probability of failure or overtopping (height of levee, condition of levee, integrity as a system, interior drainage, etc.) and consequences (cost of damages based on value of development, depth and duration of floodwater, infrastructure at risk, etc.) that will be experienced.
- Flood insurance must recognize this varying level of risk to promote actuarially-based flood insurance premiums that would recognize such a variation in flood risk.

Any proposed interim decisions and actions by FEMA, such as those being commented on here will need to be evaluated against this vision to ensure that all such interim steps taken will get us closer to that vision rather than pull us further away from it.

- As opposed to unprotected flood hazard areas, areas associated with man-made structures such as behind a levee face a different type of flood risk and flooding consequences because of the false sense of security such structures provide, and the catastrophic threat to life and property when those levees overtop or fail. Consequently, the mapping should result in a different type of zone designation, with corresponding appropriate development standards. To contrast with map zones used for unprotected areas, a new zone will need to be established to better communicate the risk and to more accurately account for the effects of these man-made structures on flood risk and insurance premiums to avoid development approaches that create future catastrophic damages that will largely be paid by the federal taxpayers.
- Such a zone would recognize that a levee can decrease damages from the more frequent, smaller floods, but must also recognize it can result in catastrophic damages and flooding risks when these levees overtop or fail. As such, ASFPM recommends that a new Zone AL be created with suffix numbers that correspond to residual risks for each levee or reach of levee (the higher the suffix, the higher the residual risks and subsequently the insurance and regulated should reflect that fact). By being an “A” zone, the AL zones will be considered a part of SFHA but FEMA could prescribe varying floodplain development standards for each zone to reflect the risk. These standards will need to be included in local ordinances as a condition for the community to participate in NFIP, just like other floodplain management standards. These multi zones must recognize varying degrees of overtopping/failure probabilities based on the details of each levee and its associated risks, recognizing that even a fully 65.10 compliant levee has a residual risk and therefore should be included in the graduated multi AL zones.
- As stated above in our general comments, rather than designate a Zone D, FEMA should immediately initiate steps to develop more appropriate risk based zones for mapping behind levees. ASFPM would readily assist FEMA in developing and implementing a new Zone Designation that appropriately reflects the relative and actuarial cost of insurance for structures behind levees and appropriate development standards.

We appreciate that FEMA has recognized the complex nature of levees and the fact that levees are systems, but the technical aspects of the LAMP process are not fully articulated. The process as described to evaluate a levee system will be lengthy and potentially very expensive. There are many outstanding questions as to interpretation of levee segmentation and application of the applicable study scenario. ASFPM members have indicated they

have a number of questions on process and methodology, but with the available time frame, we have encouraged them to submit them directly to you, in addition to the overarching comments submitted herein.

We are not opposed to the overall approach proposed in the LAMP, but ASFPM is very concerned that this initiative has the strong potential to consume FEMA resources, in particular mapping funds that are already declining. Thus, ASFPM recommends:

- Only a limited percentage of annual fund allocations be dedicated to levee issues so that the vast majority (other non-levee) communities in need of updated flood hazard mapping can be served, thus reducing overall flood risk.
- FEMA appoint a task force of experts to review each levee system for those outstanding mapping projects and identify the reach classifications and applicable study scenarios. This will provide communities with consistency in the most subjective and undefined aspect of the LAMP protocol, while assisting levee owners and local communities with a complex and potentially expensive data gathering process. The task force could be done in cooperation with USACE and the states, with whom FEMA coordinates regularly on levee issues to provide transparency in the first and foremost task of correctly identifying how a levee system should be approached.
- ASFPM is ready to provide comment on the details of the technical aspects of the protocol as they are refined and to assist with identifying the appropriate expertise to serve on any tasks forces assigned to refining the technical details.