September 24, 2007

Mr. David Stearrett
Chief, Floodplain Management Section
Federal Emergency Management Agency
500 C Street S.W.
Washington, D.C. 20472

RE: Proposed Changes to the NFIP Floodplain Management Regulations, Request for Comments

Dear Mr. Stearrett:

The Association of State Floodplain Managers is a national, non-profit, professional membership organization whose 11,000+ members are state and local floodplain managers and other professionals from all across the U.S. and beyond. The national association and our 26 State Chapters are composed of the professionals who do the job “on the ground” to make flood loss reduction a reality at the state and local levels. The ASFPM Floodplain Regulations Committee has solicited input from its members regarding recommendations for improvements to the National Flood Insurance Program, particularly as it pertains to floodplain management. All ASFPM members are concerned with working to reduce our nation’s flood-related losses.

The Floodplain Regulations Committee has reviewed the American Institutes for Research, An Evaluation of the National Flood Insurance Program, Final Report dated October 2006. We agree with the recommendations in the report. We hope that FEMA will incorporate the recommendations and make the necessary changes to the Code of Federal Regulations to make the National Flood Insurance Program and state and local floodplain management programs even more effective in reducing the nation’s losses from future flooding.

The Floodplain Regulations Committee has also compiled extensive comments from our members and from existing policy guidance of ASFPM, such as the National Flood Programs and Policies in Review – 2007. These comments are as follows:

Clariﬁcation of the following frequently misinterpreted provisions of Title 44 of the Code of Federal Regulations

1. **Standard: 60.3(a)(3)** – Guidance is needed to clarify the requirements for design and

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anchoring to withstand flood forces. This standard should require that an engineer or other appropriate design professional design the foundation/building system. If base flood elevations and flow velocities are not known, what values should be used to ensure that the design meets these requirements?

2. Standard: 60.3(b)(3) – The “50 lots or 5 acres, whichever is the lesser” language for requiring a study is confusing. Recommend alternative language such as “greater than either 50 lots or 5 acres.”

3. Standard: 60.3(b)(3) – The requirement to include base flood elevation data is unclear. It sets no standards as to how the base flood elevation data is determined, and it does not require the study to be sent to FEMA for review and potential map change. This has the effect of creating subdivisions with base flood elevation data and floodplain delineation that differs from the effective FIRM. Recommendation is to require that the base flood elevation data be determined using methods acceptable to FEMA and that the study be submitted to FEMA so the FIRM and FIS may be revised. Since FEMA’s current standards do not limit increases in flood heights resulting from development in Zone A areas, if the development will increase base flood elevations it should be specified that proposed structures must be protected to the proposed BFEs.

4. Standard: 60.3(b)(7) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained – Comment: The language in 60.3(b)(7) is ambiguous. First, clarify what is meant by "flood carrying capacity". Is this the base flood capacity? Is capacity tied to a specific flood stage? For communities with Zone A areas and 60.3(b) level regulations base flood elevations have not been established. Second, does maintaining flood carrying capacity mean that flood elevations shall not be increased as a result of the alteration? Does maintaining the flood carrying capacity mean a comparison to original conditions or does it only mean that once a channel has been altered, it will be maintained in the altered state? This standard should be clarified.

5. Standard: 60.3(b)(8), 60.3(c)(6), and 60.3(c)(12) – Guidance is needed to clarify the requirements for design and anchoring of manufactured homes. This standard should require that an engineer or other appropriate design professional design the foundation system. If base flood elevations and flow velocities are not known, what values should be used to ensure that the design meets these requirements?

6. Standard: 60.3(c)(10) – A technical bulletin, or other guidance or policy statement, is needed to assist communities in understanding what is meant by the requirement to demonstrate “that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the BFE more than one foot.”

7. Standard: 60.3(d)(3) – Clarify what is meant by an encroachment. Does an activity have to physically occupy space within the floodway that was previously unoccupied to be considered an encroachment? For instance is a project that does not create a physical intrusion but purely removes an obstruction or creates new conveyance area, such as demolition of an existing building or removal of sand and gravel, considered an encroachment? Would an...
encroachment analysis be required?

8. **Standard: 60.3(e)(7)** – Replace “which would increase potential flood damage” to say “unless it has been determined that the proposed alteration will not increase flood levels or potential flood damage”. The Coastal Construction Manual should include criteria for making this type of determination in its next edition.

9. **Standard: 60.3. General comment** – Clarify whether standards in 60.3 apply only to completed/long term development, or if temporary measures must also comply with the standards. For example, reconstruction of a bridge that crosses a floodway may require construction of a temporary stream crossing or coffer dam that would result in an increase in the BFE if the base flood occurred during construction even though the finished bridge may result in no increase or a reduction in BFEs. In some cases there may not be a practical alternative to temporarily increasing the risk of flooding. If temporary increases are allowed a short time frame should be specified. In addition, if temporary increases are allowed, how do we ensure that they don't become permanent increases?

10. **Standard: 60.3(c-d). General comment** – All standards within these sections are specifically tied to zones shown on a community's FIRM. Add language that clarifies that the community may make determinations of flood risk using both the map and a comparison of ground elevations to flood elevations from the FIRM and FIS. This would allow/require communities to enforce standards for areas at risk of flooding that were inadvertently excluded from the SFHA due to limitations in the mapping. One possible option would be to add the following language, or similar, to the end of 60.3(c)(1): "For flooding sources where FEMA has provided base flood elevation data (Zones A1-30, AE Zones, AH Zones) on the FIRM or in the community's FIS, the community shall make determinations of the true extent of the SFHA by comparing the ground elevations to the base flood elevations." Subsequently, I recommend revising the specific references to "Zones... on the community's FIRM" in 60.3(c)(2, 3, 6, 10, 12, 13, and 14) and 60.3(d) to simply "Zones..." to account for those areas inadvertently excluded from the SFHA. Add a new part to the CFR dealing with amending the FIRMs to account for inadvertent exclusions from the SFHA.

11. **Definition: 59.1. New Construction, Substantial Improvement/Damage, Start of Construction** – Clarify the definitions of "New Construction" for floodplain management purposes. For instance, if a community revises their regulations to adopt new FIRMs, is the original effective date of the regulations or the new effective date of the revised regulations the cutoff for determining the Start of Construction date and New Construction?

Clarity the requirements for improvements to existing structures that were constructed in compliance after a community adopted floodplain management regulations, but whose SFHA designation has changed due to a map revision. For instance, consider a structure whose Start of Construction was after the date that the community first adopted floodplain management regulations, but that was built in an area outside of the SFHA at the time of construction. By virtue of an increase in BFEs from a physical map revision, the structure is now in the SFHA. Would the structure be considered New Construction? If so, would any improvement or repair to the structure require that the entire structure be brought into compliance with the new BFE or would the Substantial Damage/Improvement test be applied.
12. **Standard: 65.3** – Clarify the requirement to submit new technical data in 44CFR65.3. Is a community required to notify FEMA when any change occurs in the SFHA, or only when it has an engineering study that demonstrates that BFEs have changed? For instance, fill in the floodway fringe will generally cause flood heights to rise. However, communities are not required to determine the impact of the project on flood heights from development in the fringe. Additionally, development within Zone A areas will typically result in increases in flood heights, but no impact analysis is required if the work does not alter the channel. Is the community required to notify FEMA in these situations per 44CFR65.3?

13. **Manufactured Homes** – Clarify the definition and requirements for manufactured homes. In particular, coordinate with the Department of Housing and Urban Development and refer to Title 24 of the CFR, Part 3280 and proposed revisions to Part 3280 and proposed Part 3285 Model Manufactured Home Installation Standards.

14. **Floating Buildings** – Floating buildings (buildings on permanently moored floating platforms) are being promoted in many parts of the country. Clarify the regulatory requirements for floating buildings. Are they considered a “structure” by definition in Part 59? Even though they are walled and roofed, they are not principally above ground. If they are not considered a structure they are not, by definition, “new construction.” The only specific standards that would apply, therefore, are 60.3(c)(10) and 60.3(d)(3) which look at impacts to other property.

**Incorporate current FEMA policies into the regulations**

15. **Reasonably Safe From Flooding** – For the purpose of Part 65 FEMA has defined “Reasonably Safe From Flooding” to include both surface water and subsurface water associated with the base flood. Consider defining “reasonably safe from flooding” for use in part 60.3, as was done in 44CFR65.2. This would specifically require communities to consider the effects of subsurface water on new construction in administration of their floodplain management programs. This could particularly strengthen communities’ authority to evaluate LOMR-F requests where a developer may request that the SFHA designation be removed from a vacant piece of property following the placement of fill to the BFE.

16. **Standard 60.3(c)** - general comment: FEMA has acknowledged through Technical Bulletin TB10-01, and Part 65.5 that basements below the BFE can be constructed in filled floodplains that can be considered reasonably safe from flooding. The introduction of TB10-01 and the last revisions to the rule for LOMR-Fs in 44CFR65.5, however, is creating administrative difficulties at the community level. TB10-01 shows how to build a basement in a filled floodplain, while FEMA’s minimum criteria in 44CFR60.3 that communities must enforce prohibits that activity. This discrepancy should be resolved. If FEMA accepts that basements in filled floodplains can be reasonably safe from flooding, a standard should be added to 60.3(c) allowing construction of basements that are considered reasonably safe from flooding. This could be done using a professional certification similar to what is done for non-residential dry floodproofing certification. Alternatively, the variance criteria in 60.6 could be revised to allow for use of TB10-01 to construct basements below BFE that are reasonably safe from flooding. In this manner, the community can retain permitting authority for the development to ensure that the construction complies with TB10-01. This may effectively reduce or eliminate the loophole of

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filling, removing land through a LOMR-F, and then constructing basements below the BFE (exempt from the local permit requirements after issuance of the LOMR-F) that may not be reasonably safe from flooding.

17. **Standard: 60.3(c) - general comment:** same comment as above, but for Technical Bulletin TB11-01 for crawl spaces below BFE that can be considered reasonably safe from flooding.

18. **Standard: 60.3(e)(5) -** Recommend restricting the size of breakaway enclosures. 300 square feet should be used if this will correspond with insurance rating thresholds.

**Consider Procedural Changes**

19. **Standard: 60.3(b)(4). Best Available Data —** Should use of best available data be limited to Zone A areas? If data, other than the FIRM/FIS, exists showing an unmapped area at risk of flooding shouldn't that area be regulated the same as the FEMA mapped zones? Consider moving this standard to 60.3(a). Furthermore, back-reference this standard for 60.3(b-e) level communities. Another way to address this issue may be to revise the opening paragraph to 60.3 as follows: "The Administrator will provide the data upon which flood plain management regulations shall be based. If the Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review and reasonably utilize data available from other Federal, State or other sources pending receipt of data from the Administrator. However, when special flood hazard area designations and water surface elevations have been furnished by the Administrator, they shall apply. **When flood hazard data exists from other federal, state or other sources that shows areas at risk of flooding that have not been identified by the administrator, the community shall reasonably utilize that data to administer the applicable sections of 60.3(a-e)...""

20. **Substantial Damage Determinations —** In the aftermath of large floods the responsibility of performing substantial damage (SD) determinations, which is a vital aspect of mitigation of flood prone structures, often overwhelms the capabilities of the local floodplain manager. Key mitigation opportunities may be lost due to the local floodplain manager’s inability to perform timely determinations. Often times, residents in their zeal to return their lives to normal as quickly as possible, have started demolition and repair before the SD determinations making it difficult for accurate assessments. Following a presidential disaster declaration, a portion of the disaster assistance should be made available to allow communities to hire additional temporary staff, pay for overtime, etc. to assist with the SD determinations and issuance of permits. This assistance should be made available for disasters involving both Individual Assistance and Public Assistance grants.

21. **Substantial Damage —** ICC determinations for repetitive or substantial damages should be made based on an insurance claim OR a local floodplain administrator determination, with the opportunity for reconciliation.

22. **Definitions: 59.1 Substantial Improvement —** Substantial improvement should be redefined under the NFIP so that improvements made to a structure over time are calculated cumulatively, rather than being considered individually.

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23. **Definitions**: 59.1 Substantial Damage/Improvement – Substantial damage/improvement should be redefined under the NFIP to allow the determination to be based on the replacement value minus depreciation.

24. **Substantial Damage/Improvement** – Consider expanding the concept of substantial damage/substantial improvement to various types of infrastructure, such as wastewater treatment plants.

25. **Repetitive losses in non-SFHA areas** – No matter what their location with respect to identified Special Flood Hazard Areas, structures outside of an SFHA for which two or more flood insurance claims or flood disaster assistance have been paid should be mapped and insured as SFHA properties. This includes flooding from stormwater.

   Alternately, flood insurance premiums could be adjusted to reflect the actual risk based on claims history for repetitively flooded structures that are mapped outside of the SFHA.

26. **Digital Flood Maps** – 60.3(b) (and elsewhere as appropriate) should be revised to give accurate digital flood data the same regulatory status as paper maps.

27. **Enclosures Below Lowest Floor** – Conversion of unfinished areas below the base flood elevation to finished floor space continues to be a problem. Processes to ensure continued compliance with “enclosures below the lowest floor” standard should be instituted nationwide. A pilot program is being conducted in Monroe County, Florida, to address this issue. The pilot program should be evaluated and standards developed for a program that could be the basis for a national standard.

28. **LOMR-Fs** – FEMA should evaluate ways to eliminate the use of Letters of Map Revision (issued after the use of fill or the modification of a channel to alter the floodplain) to avoid the purchase of flood insurance. The most direct approach would be to discontinue the practice of waiving flood insurance after issuance of a Letter of Map Revision based on Fill. Properties for which a Letter of Map Revision based on Fill is issued would still enjoy the reduced flood insurance premium rates that are assigned to an elevated structure.

29. **LOMR-Fs** – FEMA should halt the practice of issuing LOMR-Fs (removing the SFHA designation) for undeveloped parcels of land that have been filled to the BFE or above. From the perspective of the NFIP, removal of the SFHA designation has two effects. It removes the authority of the community to regulate the area and it removes the mandatory flood insurance purchase requirement. Since insurance through the NFIP is for structures only, if structures are not intended on the property, there is no consequence regarding the mandatory flood insurance purchase requirement if FEMA does not issue the LOMR-Fs for the fill. If FEMA does not issue the LOMR-F, the area stays within the SFHA and the community continues to have the authority to regulate future development on the property, including the requirement that structures have the lowest floor, including basement, elevated to or above the BFE. If FEMA does issue the LOMR-F, the community no longer has authority to regulate the area. If structures are constructed on the property, the community can not prohibit construction of basements below the BFE.
Houses with basements are more marketable in many parts of the country than houses without. There is less incentive for developers to build in areas that either can not have basements, or if so, will be considerably more expensive to build due to the additional fill that would be required to elevate the basement floor above the BFE. Developers continue to use the LOMR-F process to circumvent the requirement that residential structures within the SFHA must have the lowest floor, including basement, elevated to the BFE. Issuance of the LOMR-F for vacant property makes it less costly to develop in floodplains, reducing the disincentive for developing in flood-prone areas. Therefore, issuance of LOMR-Fs for vacant land undermines the goals of the NFIP by weakening the authority of the local community, and by making it cheaper to fill floodplains, thus increasing the severity of flooding elsewhere.

30. LOMAs – The basis for determination of when to issue a Letter of Map Amendment should be revised to include lowest floor elevation, in addition to Lowest Adjacent Grade. Simply because the natural grade was above the BFE does not guarantee that a structure with a basement will be reasonably safe from flooding or flood damage during the occurrence of the base flood discharge. The presence of a lowest floor below base flood elevation in a SFHA represents a potential violation of 60.3(c)(2). The most appropriate action for FEMA to take, when informed of a potential code violation, is to bring this to the attention of the participating community for their enforcement action, not to remove the structure from the SFHA.

31. Advisory BFEs – The FEMA Director should be given discretionary authority to require local governments to use advisory maps and advisory base flood elevations for administration of their NFIP related ordinances, based on input from communities and the state.

Incorporate Higher standards

32. No Adverse Impact – We recommend modifying the regulations to reduce adverse impacts to other structures in the community, rather than the current singular focus on potential damages to the proposed development or structure.

33. Development standards for non-structural development – Communities are required to issue permits for all development within the SFHA. The definition of development includes activities such as placement of fill and storage of materials. The standards in 60.3(b) and 60.3(c) do not have any requirements for ensuring that these activities will not be damaged by the base flood, or potentially worse, result in off-site damage due to its becoming flood-borne debris. Consider including standards that require all development activities in flood-prone areas, not just those including structures, to be constructed in a manner that is reasonably safe from flooding.

34. Standard 60.3(b)(3) – Require delineation of a floodway and compliance with floodway encroachment standards for subdivisions and large developments. Specifically, revise 60.3(b)(3) to read "Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, include within such proposals base flood elevation AND FLOODWAY data." Currently there are no restrictions on increases in flood heights resulting from development in Zone A areas, as long as the proposed structures are protected to the BFE.

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Reduce the threshold for subdivisions and large developments that triggers the requirement for development of BFE data. Current hydrologic and hydraulic modeling software has made it easier to develop BFE data than when this standard was first adopted. Consider requiring that BFE data be developed for projects involving 20 lots or 2 acres.

35. **Basements below BFE** – Why is it that basements below BFE in filled floodplains are prohibited, but basements below BFE in natural ground adjacent to floodplains are permitted? There is nothing innate about natural ground that guarantees that the residual risk from damage to the structure from subsurface waters associated with the base flood will be any less than in engineered fill. In permeable native soils, the opposite may be true. If the NFIP is truly concerned about damage to basements from floodwaters associated with the base flood, all basements below BFE should require demonstration that the basement will be reasonably safe from flooding.

Consider ways of expanding the area of jurisdiction to address the construction of basements below BFE in areas just outside of the SFHA. For LOMR-Fs 44CFR65.2(c) has already established the precedent that communities must evaluate a structure to be reasonably safe from both inundation and subsurface waters associated with the base flood.

36. **Freeboard** – The NFIP requirements should require that all new construction (residential, non-residential, manufactured home, etc.) have from 1 to 3 feet of freeboard above today’s estimated base flood elevation. This would acknowledge and mitigate uncertainties, account for increased runoff caused by climate change and future development (both within and outside the floodplain), allow for wave action from the wakes of rescue boats, and provide a margin of safety for wind-induced wave action on wide flooded areas. It also would result in significantly reduced flood insurance rates for owners of such buildings.

An alternative to a standard freeboard requirement would be to use some sort of confidence limit in the determination of flood peak flows. Under current procedures, all statistical analysis of river flows and regional analyses are done and then a 50% confidence limit is applied to the estimate. That means that it is acknowledged that the estimates of 100-year peak flows are low 50% of the time and high 50% of the time. Using the 90% or 95% confidence limit instead would rationally increase those estimates so that there would be fewer “surprises.” Consideration should be given to using a 90% confidence limit with one foot of freeboard or a 95% confidence limit with no freeboard.

Another alternative to adding freeboard to the 100-year flood standard would be to use the 0.2% (500-year) flood standard as the basis for regulation. This is especially appropriate and should be a requirement for critical facilities.

37. **Regulating/mapping floodplains if freeboard regulations are adopted** – We recommend regulating/mapping the floodplain to correspond with the area inundated based on the chosen amount of freeboard. In other words, if the regulations require one foot of freeboard, then the Special Flood Hazard Area should include all land which would be inundated by a water surface elevation of BFE + 1 foot.

38. **Future Conditions** – Require communities to regulate development based on anticipated
hydrologic and hydraulic conditions.

39. Critical Facilities/Infrastructure – FEMA should develop more detailed floodplain management standards for the siting and construction of critical facilities. This should begin with a definition of which facilities are considered “critical,” and require that they be protected from and accessible during the 500-year flood. When new critical facilities are constructed, at least the primary access route should also be at an elevation at least equal to the level of the 500-year flood to avoid the facility’s being isolated during a flood. New construction of critical facilities should not be allowed in the 100-year floodplain below the 500-year flood level.

National standards should be developed for the location, design, and construction of infrastructure exposed to flooding, flood-related erosion, and other impacts, including a requirement to consider alternative locations.

National standards should require that roads, bridges, and railroads are built or rebuilt to avoid or minimize adverse impacts on other property and on natural functions and resources.

40. Floodways – Based on current guidance, floodways are delineated based solely on increases in flood heights during the occurrence of the base flood discharge. Likewise, evaluation of floodway encroachment is only required to look at the impact on flood heights. Effects on flood velocities and other secondary impacts (erosion, scour, increased hydrodynamic forces, etc.) are not considered. Floodway standards should be adjusted to account for these and other impacts, not just increased flood heights.

41. Floodways – A no-rise floodway with no impact on water surface and velocity should be required, so that only those areas of insignificant hydraulic conveyance could be filled. Allowing cumulative filling of the floodplain until a 1-foot increase in base flood height is achieved (the current standard) results in the following:

- Properties built to the BFE are flooded by one foot of water during the base flood
- The size of the floodplain increases impacting property presently outside the floodplain
- Increased flood damage on other owners’ properties in the floodplain occurs
- Increases in downstream flood peaks occur
- Increased filling of riparian zones, that would be valuable natural resources if left undisturbed, occurs.

In addition, FEMA standards for a Letter of Map Change that allow rises even beyond one foot should be revised to minimize community liability and ensure that no takings are occurring where flood heights have been increased on undeveloped land. One way of achieving this is by requiring the purchase of flooding easements for any (more than zero) proposed increase.

42. Floodways – Levees should not be constructed in floodways. Levees should be set back from rivers when they are constructed or reconstructed. This will allow the river to function more naturally, provide more space for flood water storage and conveyance, reduce flood stages elsewhere, reduce the costs of maintenance and risk of failure because the levee is not exposed to as much high-velocity flow, and provide for the protection or restoration of riparian

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and wetland resources between the river bank and the levee. Clear guidance should be established about the type and amount of vegetation that is consistent with proper levee maintenance.

43. **Structures in the floodway** – Address the "use" not the structure. e.g. the current regulations say, no structure unless a P.E. can provides a "no rise" certificate. The problem is that FEMA provides no detailed guidance on how the no rise calculation must be done. This guidance must assume all similarly located properties on both sides of the stream for a hydraulic reach have the same right to build in that floodway, than do the calculation with all those structures in place. The best solution for public safety is to regulate "use" by indicating that habitable use is not a permissible use in the floodway. In the alternative, FEMA must develop appropriate guidance for no rise calculations.

44. **Increases in flood heights** – In Zone A areas increases in flood heights are not limited. In floodway areas, flood heights are permitted to increase by up to one foot (higher in some cases through use of the CLOMR process). If increases in flood heights continue to be permitted, easements from affected property owners should be required for the areas affected by increased flood heights.

45. **Compensatory storage** – Require compensatory storage for fill placed in the floodplain to help reduce increased flood flows resulting from development in the SFHA.

46. **Standard: 60.3(e)** – The size and type of V-Zone breakaway enclosures should be limited to reduce debris impacts to adjacent and public and private property.

47. **Standard: 60.3(e)** – The NFIP regulations should be revised to prohibit the use of fill for septic systems in V-Zones, and should explicitly prohibit the siting of septic systems in V-Zones unless it has been determined by a P.E. or other appropriate design professional that the site is not prone to scour or undermining.

48. **Coastal Zone A areas** – The National Flood Insurance Program regulations should be revised so that buildings in coastal A Zones are subject to the same design and construction standards as those in V Zones.

49. **Coastal Zone A areas** – Using structure-supporting fill to elevate buildings to or above the base flood elevation in coastal A Zones has been an accepted flood mitigation practice for both new construction and substantial repair or improvements to existing buildings. However, fill can deflect waves or cause stormwater runoff impacts in the vicinity of the elevated buildings, resulting in ponding and often inundating nearby properties. This problem is particularly troublesome in low-relief coastal communities, where flood elevations have increased over time as flood maps were updated and newer (post-FIRM) structures were constructed on fill placed to the new base flood elevations. The NFIP regulations should be revised to limit the use of fill to elevate buildings in coastal A Zones.

50. **Zone V delineation criteria** – The NFIP regulations should be revised so that the V Zone is defined as the area subject to 1.5-foot or greater wave height (instead of the current 3 feet).

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51. **Shoreline protection** – The use of hard structures to protect shorelines should be avoided, unless it can be demonstrated that no adverse impacts will result from the long-term presence of the structure and of similarly situated structures.

52. **Floating buildings** – Incorporate standards to address floating buildings. Floating buildings should be prohibited in the floodway and in coastal high hazard areas. The design precludes the building from being permanently elevated above the BFE. How will emergency personnel access the building during a flood? What happens during floods that exceed the design flood? Will these become runaway barges? How should they be anchored? What if the anchoring system interferes with the ability of the building to rise and fall? How will the buildings withstand wave action? What about standards for utility connections? Floating buildings are beginning to gain popularity in many areas of the country. Standards are needed quickly to address these concerns.

We appreciate the opportunity to provide input on how the goals of the NFIP may be achieved more effectively and efficiently.

Please contact either George Meyers or Michael Powell if there are any questions regarding these comments.

Thank you,

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