Dear Chief Elected Officials and Floodplain Administrators,

Recent issues with debris cleanup on levees after a flooding event caused the Missouri State Emergency Management Agency (SEMA) State NFIP Coordinator to seek guidance from the Federal Emergency Management Agency (FEMA) Region VII Office in Kansas City and FEMA Headquarters. Please take time to read the explanation and guidance below. It clearly states the NFIP-participating community's role in debris cleanup after a flooding event. Please carefully read the entire document.

Basic Guidance:

The 100-year flood is referred to as the 1% annual exceedance probability flood, since it is a flood that has a 1% chance of being equaled or exceeded in any single year. The primary risk classifications used in the NFIP are:

- 1-percent-annual-chance flood event (AKA 100-year – high risk area), the
- 0.2-percent-annual-chance flood event (AKA 500-year - moderate risk area), and
- areas of minimal flood risk (B,C, or X Zones).

The 1% annual chance (base flood) is the flood that has a 1% chance of being equaled or exceeded in any year; the Special Flood Hazard Area (SFHA) is the area subject to flooding by the 1% annual chance flood.

In addition, please note that:

- 44CFR 59.1 defines "development" as "any man made change to improved or un-improved real-estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials."
- A floodplain development permit shall be required for all proposed construction or other development, including the placement of manufactured homes, in the areas identified as A zones or AE zones on the Flood Insurance Rate Maps (FIRMs) for the community.
- No development shall be permitted except through the issuance of a floodplain development permit, granted by the community's floodplain administrator.
- Once FEMA defines a floodway for a particular stream reach, then what was once a 1% floodplain is now divided into the "floodway" and the "floodway fringe."
- **"Floodway"** is the channel of the river or stream and the adjacent land that must remain free from obstruction so that the 1% flood can be conveyed downstream.
    - Communities shall prohibit encroachments, fill, new development, substantial improvements and other development within the regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses that the proposed encroachment would not result in **ANY** increase in flood levels within the community of the base flood (100-year) discharge.
- "**Floodway Fringe"** is the remaining portion of the floodplain not included in the floodway. FEMA and state regulations permit communities to allow the floodway fringe to be obstructed and developed if standards (i.e., elevating and floodproofing structures) are met.
    - The floodway fringe and the 1% floodplain have the same requirements regarding development.

Prior to the start of a project in the SFHA, the community's floodplain administrator must be made aware of the scope of the development and where it is located before issuing a floodplain development permit. Follow this link for a list of all Missouri floodplain administrators (by county): https://sema.dps.mo.gov/county/. Please note that local floodplain administrators are listed below the emergency coordinators.

Specific Guidance:

The FEMA guidance found in The National Flood Insurance Program Floodplain Management Requirements *A Study Guide and Desk Reference for Local Officials* (FEMA 480) (https://www.fema.gov/media-library-data/1481032638839-48ec3cc10cf62a791ab44ecc0d49006e/FEMA_480_Complete_reduced_v7.pdf) states that a key concern is that each project proposed in the floodway must receive an "encroachment review," i.e., an

analysis to determine if the project will increase flood heights. However, there are provisions for **minor projects**, which may be determined by the local community. The community makes the decision on defining a minor project, because it can best be determined by the judgement of the local jurisdiction. The community must take into consideration such questions as the amount of debris and its impact; the type of debris, if it impedes the flow of water; the proposed debris removal process, any physical impact to local levees; and how much debris is located in the floodway. Is the regulatory floodway on the landside of the levee? The community permit reviewer's job is to ensure that any debris-related activity will not cause an obstruction or increase in flooding. FEMA 480 states that the community has two options:

1. For every project the community could require the floodplain development permit applicant's engineer to certify that there will be "no rise" in flood heights, or
2. The community can make the determination that the debris removal is a minor project and would not cause a rise in the effective published Base Flood Elevation (BFE).

Burning Debris and Ash Removal in the Regulatory Floodway:

If a community determines that staging and burning debris followed by ash removal in the regulatory floodway is a minor project, a Floodplain Development Permit is still required. The permit should note all the details of the activity, and that the project has been determined to be minor by the community after it has made a conscious effort to identify potential risks and impacts to the floodway using standard floodplain management analysis practices.

> Recommendation: The State Floodplain Management Section highly recommends that the community spell out in its administrative procedures which "minor development" projects will not cause an obstruction. This documentation, when followed systematically, will create consistency.

Burying Debris in the Regulatory Floodway:

It must be demonstrated through hydrologic and hydraulic analyses that a proposed project including burying debris in the regulatory floodway will not result in any increase in flood levels during the occurrence of the base flood discharge. An Engineering "No-Rise" Certificate must be signed and sealed by a Missouri Professional Engineer. If an Engineering "No-Rise" Certificate is obtained and presented to the local floodplain administrator, they will then need to evaluate the project to determine if the requirements of the community's floodplain management ordinance are being met. If so, the floodplain administrator may approve a Floodplain Development Permit for burying debris in the regulatory floodway.

Repairing a Levee, Building a Levee, or Levee Buildup:

Levees and levee systems are regulated development in the FEMA-mapped SFHA. The vast majority of all levees are located in a regulatory floodway. It must be demonstrated through hydrologic and hydraulic analyses that the proposed project of levee repair, levee building or levee buildup in the regulatory floodway will not result in any increase in flood levels during the occurrence of the base flood discharge. An Engineering "No-Rise" Certificate must be signed and sealed by a Missouri Professional Engineer. If an Engineering "No-Rise" Certificate is obtained and presented to the local floodplain administrator, they will then need to evaluate the project to determine if the requirements of the community's floodplain management ordinance are being met. If so, the floodplain administrator may approve a floodplain development permit for levee repair, levee building or levee buildup in the regulatory floodway.