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Levees: The Double-Edged Sword

Levees can :

- 1) **Reduce damages in some floods** when they are properly operated and maintained, which is the responsibility of the levee owners.
- 2) **Increase flooding downstream or upstream** because floodwaters no longer have full access their floodplains or because floodwaters are pinched in to pass between levees.
- 3) **Lead to the removal** of lands behind levees from the insurance and land use regulation requirements associated with the National Flood Insurance Program.
- 4) **Increase risk due to development behind levees**, and combined with the lack of flood insurance, can set the stage for economic catastrophe when families and businesses have nowhere to turn but to the federal taxpayers when the levee is overtopped or fails. *(An example is the devastation from the 2005 levee failures in New Orleans, which claimed more than 1300 lives and caused more than \$80 billion in property damage.)*

Consider the following:

- As we approach the six-year anniversary of Hurricane Katrina, the US still has no national policy on levees or flood risk, and no national standards for levee design.
- Despite a significant federal effort to inventory the location and general condition of the nation's levees, as many as 70,000 miles of non-federal levees proliferate the American landscape that have not been inventoried and are of unknown condition.
- Although some communities have flood warning and evacuation plans, there is no legal requirement that property owners or prospective buyers behind levees be notified of the risks they face.
- Standard insurance policies for homes and businesses behind levees do not cover flood damage, even when the flood damage is caused by a levee being overtopped or failing.

Why Should Congress Care About Levees?

As the nation grapples with challenges associated with levees and associated flood risk, Congress will consider the full range of measures to help communities reduce risk, including flood insurance, changes in land use, and the strategic relocation from areas of greatest risk. States and local governments should consider their role and responsibility in addressing flood risk, and the long-term costs of local development decisions. ASFPM recommends that the adequacy and safety of the levee itself be addressed as one part of a broader national flood risk management strategy, and that federal incentives be designed to encourage state and local practices proven to effectively manage and reduce long-term flood losses and risks associated with the existence of levees and related environmental, social, and economic disruption.

We will soon enter an era of levee “triage” – the process of prioritizing federal response to flood risk associated with levees and rationing scarce federal dollars. Options for risk reduction projects may include setting back levees from the edge of rivers or coasts, floodplain restoration, planned overflow sections in levees to prevent total failure, and combining options to make the best use of limited public resources. Response to the levee crisis – and smart investment of limited public dollars - must entail evaluation of the full range of measures to reduce risk, including flood insurance, changes in land use, and strategic relocation from areas of greatest risk.

Principles of Effective Levee Risk Management

- **Expand and complete the National Levee Inventory.** Although the National Levee Database includes levees within the Corps of Engineers authorities and those identified during FEMA mapping processes, as many as 70,000 miles of levees have not been inventoried, posing a threat of unknown magnitude.
- **A national levee risk management program is needed.** Such a program would assist states to set levee standards, establish levee inspection, operation and maintenance programs, and build state capability.
- **Every home and business behind a levee should be insured.** Reports over the past 40 years on levees and risk all reached the same conclusion: insurance helps people recover more quickly and more completely, raises awareness of the residual risk posed by levees, and should be required behind levees.
- **Prevent at-risk development and/or modify development behind levees .** Good planning and land use/codes programs can reduce flood risk and help communities incorporate hazards into their long-range plans to correct past mistakes and prevent new ones.
- **Incentivize state and local policies that reduce risk, and remove incentives that promote poor choices.** Include a diverse menu of incentives to help encourage state and local governments in their efforts to plan and manage flood risk associated with levees. Incentives that encourage states and local governments to manage development wisely to avoid creating tomorrow's disaster will cost the federal taxpayers less than continuing to pay disaster relief for flood damages after levee failure.
- **Levees should be the mitigation option of last resort, and never be built to protect undeveloped land.** Using levees to provide some protection for existing development may be a good option in some cases, but levees around undeveloped flood risk areas encourage development in residual risk areas, and can lead to future catastrophic losses.

Because of the nature of levee failure flooding, the ASFPM believes that levees are generally not a wise community choice and should never be used to facilitate new development in flood-prone areas. Where levees already exist, or where a levee appears to be the best option after careful analysis of all structural and non-structural alternatives to reduce flooding to existing development, ASFPM advocates that levees (especially urban levees) be:

- 1) Designed to a high protection standard, and federal levees should provide at least 500-year level of protection.
- 2) Frequently and adequately inspected, with all needed maintenance funded and performed.
- 3) Used only as a method of last resort for providing a limited means of flood risk reduction for existing development.
- 4) Are not appropriate as a means of protecting undeveloped land for proposed development.
- 5) Local sponsors must commit to performing all inspection and maintenance over the life of the structure in order to qualify for federal assistance in construction.
- 6) Any new or reconfigured levee systems must be set back from waterways to provide riparian habitat and "room for rivers" to store and convey floodwaters.



The mission of ASFPM is to promote education, policies, and activities that mitigate current and future losses, costs, and human suffering caused by flooding, and to protect the natural and beneficial functions of floodplains - all without causing adverse impacts. For additional information, contact the ASFPM Executive Office at 608-274-0123 or visit ASFPM's website at www.floods.org.