

May 9, 2015



Mr. Adrian Sevier
Regulatory Affairs Division
Office of Chief Counsel
Federal Emergency Management Agency
8NE, 500 C Street, SW
Washington, DC 20472-3100

Re: Seeking public comment on the draft Guidelines for Implementing the Federal Flood Risk Management Standard: Docket ID FEMA-2015-0006

Dear Mr. Sevier:

Wetlands Watch is a non-profit environmental group working statewide in Virginia on the conservation and protection of wetlands. We are pleased to submit this letter of comment to the Federal Emergency Management Agency (FEMA) on the draft *Guidelines for Implementing the Federal Flood Risk Management Standard* (80 Fed. 6530, Feb. 5, 2015). We fully support the Administration's Executive Order 13690 to update federal flood protection standards as a long-overdue step to address increased flooding due to sea level rise. We support robust implementation of the Federal Flood Risk Management Standard and draft Guidelines as an effective approach to mitigate the future risks and costs of flooding exacerbated by the effects of climate change.

Wetlands Watch has been working since 2007 to help local governments in the tidal reaches of Virginia adapt to sea level rise. With the highest measured and projected rates of sea level rise on the Atlantic Coast, Virginia is ground zero for flooding impacts and needed adaptation. Over the last eight years of adaptation work, we have been directly involved in opposing a wide range of shoreline development proposals and projects that we felt were ill-considered given increased flood risk due to sea level rise.

In that work, we have identified a range of maladaptive government policies that continue to support status quo development along Virginia's shoreline, development that we now know is unsustainable and will require tremendous taxpayer outlays to protect and, in some cases, remove. The proposed Federal Flood Risk Management Standard and draft Guidelines (proposed Standard) move federal policy in the direction needed to correct this problem.

Summary

Wetlands Watch fully supports the proposed Standard. We feel it is a long overdue change from a retrospective policy focus to a prospective one that reflects our current understanding and experience with flooding and sea level rise. We feel the expansion of the geographic scope of this proposed Standard beyond today's 100-year floodplain is prudent and protective of federal taxpayer investments. We feel the inclusion of federal "actions" needs to be as broadly interpreted as possible, including both direct and indirect federal taxpayer supported programs as well as permitting decisions. We feel the emphasis on nature-based approaches to floodplain management is excellent. We feel that to avoid disruption there may need to be a one-time transition rule to cover actions already underway.

Retrospective v. Prospective Focus

Current government policy and regulation at all levels assume a stationarity wherein natural systems fluctuate within an unchanging envelope of variability, allowing the use of past experience to guide action in the present and into the future. With climate change, stationarity no longer exists, meaning we cannot use past experience to project policies into the future.

Nearly all federal policy and regulation is based on stationarity. Floodplains are a prime example and central to the proposed Standard. We use past flooding events to establish an area within which there has historically been a 1% chance of a flooding event in a given year. We assume that this area will remain relatively static (absent development and other perturbations) and we can thus base policies and regulation on the expectation that the past conditions will extend into the foreseeable future

What we are observing in southeast Virginia, with a 1.45 foot/century rate of sea level rise (measured), is an increase in frequency and extent of flooding. Roads laid out in the early parts of the last century are now regularly inundated as are the surrounding properties. With sea level rise, properties that are not in the historic 100-year floodplain are flooding regularly. In response to this changed reality, eleven Virginia localities have instituted floodplain ordinances requiring freeboard of two feet or more. Additional localities are reviewing their floodplain ordinances and are expected to follow suit. What these and other actions signal is a shift from a retrospective policy focus to a prospective policy focus.

This additional measure of protection, this prospective focus, being taken by localities in Virginia is exactly what this draft Standard seeks to implement in its use of three options for agency consideration:

- **Climate – Informed Science Approach:** Use the best available climate science data to determine future flood conditions, and elevate structures above that future flood level (the preferred method for agencies to apply if the information is available);
- **Freeboard Value Approach:** Elevate structures and facilities two feet for standard projects and three feet for critical projects above the 100-year flood level;

- 500-Year Elevation: Elevate to the 500-year flood level (a flood with a 0.2 percent chance of occurring in any given year).

The three-option framework for determining the vertical flood level and corresponding flood hazard area provides a reasonable model for agencies to follow in order to best mitigate their flood risk. Each option ensures that the more frequent uncertainties associated with climate change and other future changes are adequately accounted for when federal agencies engage in an action that will affect the floodplain.

Some opponents of this proposed Standard cite this flexible approach as confusing and one that creates uncertainty. We feel that the flexibility allowed is much preferable to a single, “one size fits all” approach that these organizations and individuals in opposition seem to endorse. In some federal agencies, due to the nature of their programs, one option may work best. In another federal agency, one of the others may be a better fit. Correspondingly, in one area of the country, there may be insufficient information to use one of the options, say the Climate-Informed Science Approach, but the 100 year floodplain is known and delineated, allowing the Freeboard Value Approach to be applied.

These adaptations of specific standards options to fit agency operations will take place in the years ahead, as this proposed Standard moves into inter-agency review and then into rulemaking in individual agencies. Removing this flexibility now will only constrain the process later and diminish the protection sought in this proposed Standard.

Geographic Scope

This proposed Standard would expand the geographic area covered by existing policy, from today’s 100-year flood plain to a broader area where future flooding is expected to worsen. This common sense approach is also fiscally sound, given that upwards of 30 percent of the flood insurance claims come from outside of the 100-year floodplain today, a figure that will rise with increased and more frequent inundation due to sea level rise.

Many federal actions separately and in combination support development that will remain in place for many decades, during which time these federal investments will be exposed to increasing flood risk from sea level rise. This is especially true for residential developments where the useful life of houses, properly maintained, extends well over a century. For federal actions supporting these developments there needs to be a substantial margin of safety built into federal actions such as cost sharing on transportation, mortgage guarantees, critical infrastructure, and the like.

Today’s retrospective policy only subjects federal actions in the existing floodplains to greater scrutiny, missing taxpayer exposure in adjacent areas, where flood risk will increase substantially in coming decades. We can predict with near certainty that over the useful life of these federal investments, especially those involving residential development, the risk to the federal investments outside of today’s 100-year floodplain will increase. This proposed Standard seeks to address that increased risk.

Reinforcing the wisdom in this proposed Standard, the private sector is taking action in the tidal reaches of Virginia. The bond rating company, Moody's, has already started the process of risk analysis outside of today's floodplains. In a 2015 questionnaire sent to local governments in the Hampton Roads region of Virginia, Moody's is compiling data on municipalities' future flood risk due to sea level rise, exposure outside of today's floodplains. As this future risk is quantified it is expected that it will become part of a municipality's bond rating and any unmitigated future risk will result in higher bond costs. Given this activity, it would seem that the proposed Standard is aligned with private sector concerns about future risk due to increased flooding, especially flood risk outside of today's floodplain designations.

Scope of Federal Actions

The types of federal "actions" subjected to additional scrutiny under Executive Order 13690 appear to be broader than those under the existing Executive Order 11988. This expansion of "actions" covered by this executive order is a welcome modification in policy.

The apparent inclusion of permitting actions in the class of federal actions subject to additional scrutiny is long overdue. In our review of proposed shoreline developments, we find the inability to place conditions on the federal permits or permitting authorities delegated to the states is a barrier to effective sea level rise adaptation, placing critical infrastructure at risk. A number of critical facilities supporting development are typically located along shorelines, such as sewage treatment plants, power plants, and associated infrastructure. These infrastructure investments have a useful life of decades and will face increasing flood risks, yet none of this future risk is examined in the current permitting process. We hope the proposed Standard will address this oversight.

We have special concerns with wetlands permits issued under the authority of the Federal Clean Water Act (33 U.S.C. §1251 et seq.). We have for years systematically opposed tidal wetlands mitigation bank permit applications in the Norfolk District of the US Army Corps of Engineers that do not take sea level rise into account. With the high rates of sea level rise in this District, we can predict the point at which those banks will begin to fail, no longer providing the acreage or functions sufficient to offset the original permanent impacts on tidal wetlands. These mitigation banks are required to provide mitigation in perpetuity and the failure to take future inundation levels into account compromises this permanent mitigation. To maintain "no net loss" of tidal wetlands acreage and function, these permits must take sea level rise and future inundation into account.

The impacts we are experiencing on tidal wetlands are observable and certainly will increase within the foreseeable future. Preliminary results of a new tidal wetlands survey of the York River Watershed in Virginia being conducted by the Virginia Institute of Marine Science (VIMS) found a 9% loss of tidal wetlands over the last 30 years. For some specific types of wetlands, the losses were even more significant: VIMS' s survey indicates that fringing marsh loss was as high as 30% in the watershed over the last 30 years. Nearly all of these losses are attributed to sea level rise.

There is a need to include all federal funding programs under this proposed Standard, even those block grant programs that have traditionally lost their federal identity once they pass through state agencies. For example, the Department of Housing and Urban Development's Community Development Block Grant (CDBG) funds have traditionally been viewed as having lost their federal identity by the time they are administered by local governments. However, given that these funds have been approved for disaster recovery and hazard mitigation purposes, there is a critical need for adequate margins of safety to be required by the federal government in the use of CDBG dollars by local governments.

Beyond these specific uses, there is a need for the protections envisioned in the proposed Standard to be applied to conventional uses of CDBG and other funds that support community development. These funds represent significant federal taxpayer outlays and if those investments are placed in areas at risk from future flooding, that future risk needs to be factored into these investments. These and other indirect federal funds provide incentives and leverage private investment in shoreline development and are a significant example of the maladaptive government policies that we have observed in our community-level work.

As well it is critical to include indirect federal assistance, such as financial guarantees in the definition of federal "action." These federal financial underwriting programs, such as mortgage guarantees, place the federal taxpayer at risk should the guaranteed project fail. It is logical that before a mortgage guarantee is issued there be adequate consideration of future flooding risk, at least the risk over the term of the guarantee. All of the shoreline housing development projects we have opposed have received federal mortgage guarantees without any consideration of future flooding risks.

In the case of lower and moderate income housing projects, the developer also receives significant federal tax credits as a result, a further federal taxpayer investment in projects that should be subject to the additional scrutiny envisioned in this proposed Standard. Again we have observed shoreline housing projects where the developer received millions of dollars in federal tax credits for subsidized housing without any evaluation of future exposure to inundation risk. These tax credits directly support the development project and we feel these Internal Revenue Service programs should be covered by this executive order and the proposed Standard.

Exposing financial investments, such as federal long-term mortgage guarantees, to the certainty of increased future risk without first evaluating that risk would never occur in the private sector. Why shouldn't we expect the same scrutiny for federal taxpayer investments and financial guarantees?

Nature Based Solutions

The emphasis on nature-based solutions to flood protection is a very valuable addition to federal policy. One of Wetlands Watch's concerns is that when flood mitigation and sea level rise adaptation projects are designed, they will not place an emphasis on the maintenance or expansion of ecosystem services. This executive order insures that any actions taken will have to look at these nature-based solutions first.

Need for Transition Rule

This change in federal policy is a major shift and will cause some disruption and require many adjustments. As much as Wetlands Watch desires complete and rapid implementation of this proposed Standard, there is a need for a “transition rule” to be included as this process moves forward. A one-time transition rule would allow communities that are planning on federal actions taking place under the existing executive order have a period of adjustment to the new executive order and proposed Standard. Given that the process of interagency review and individual federal agency rulemaking will take years to implement, such a transition rule should be for a fixed period of time and be terminated as soon as possible in the implementation phase of this proposed Standard.

Similarly, there are many federal actions that occur in phases over years, if not a decade, and many of these are underway as this proposed Standard is being applied to agency actions. “Grandfathering” these ongoing actions would be a fair and justifiable transition to the new reality we face, since these actions were initiated in our current, albeit outdated policy environment. The use of this grandfathering should be severely restricted, however, lest we end up with significant taxpayer exposure and potential expense.

In summary, Wetlands Watch supports the proposed Standard and a rigorous interpretation of its provisions. Our practical, street-level experience over the past eight years informs this call to action. Without this proposed Standard, we will expose coastal communities and federal taxpayers to continued and increasing exposure to financial liability.

Sincerely,

A handwritten signature in cursive script that reads "William A. Stiles, Jr." The signature is written in black ink and is positioned to the left of the typed name.

William A. Stiles, Jr.
Executive Director