



# **EO 13690 & The Federal Flood Risk Management Standard**

**Member/Partner Briefing  
February 10, 2015**



Chad Berginnis, CFM  
ASFPM Executive Director



# Executive Order (EO) 13690

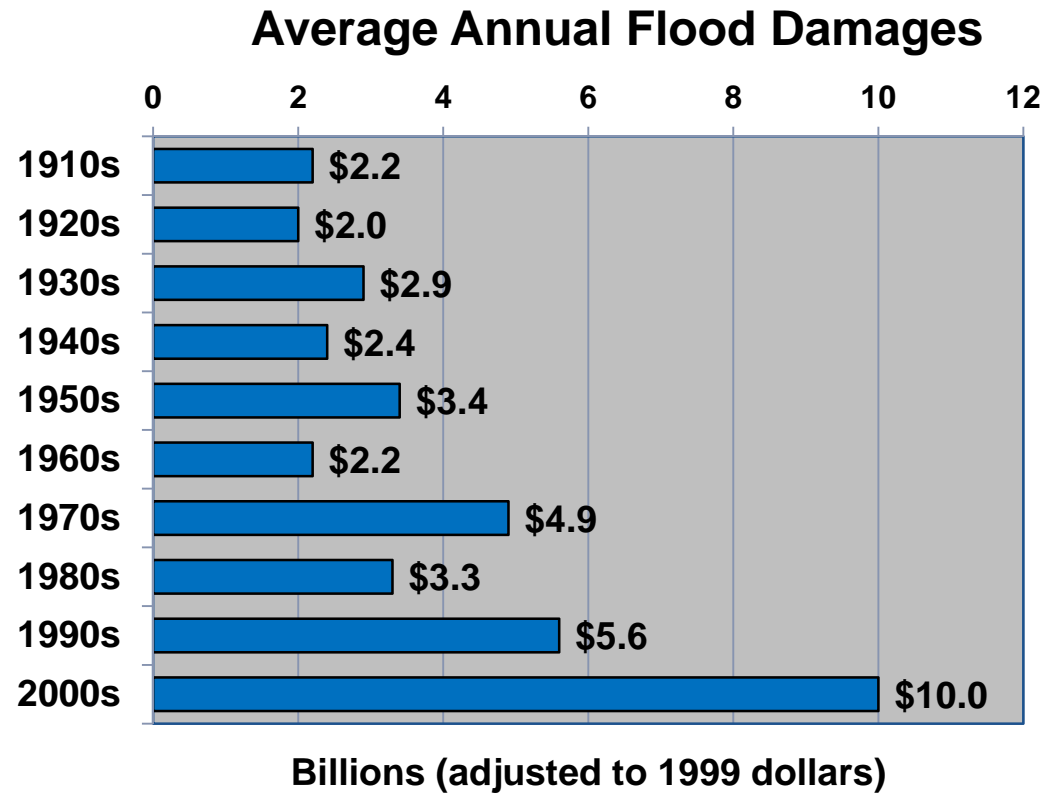
- Issued January 30, 2015
- Amends EO 11988 – Floodplain Management
  - Does not replace; rather makes adjustments (i.e., keeps the 8-step decision making process)
- Contains a new Federal Flood Risk Management Standard (FFRMS)
- Contains new considerations for agencies as they implement the 8-step process

***Why do we need a new flood standard?***



# Flood Damages Are Increasing!

- \$10 billion annually\*
- Almost doubled from 1990s
- Per capita damages increased by more than a factor of 2.5 in the previous century in real dollar terms
- What we have been doing isn't working



Source: *Flood Loss Data*, National Weather Service, Hydrologic Information Center (<http://www.nws.noaa.gov/hic/>)

Further Information: *Flood Damage in the United States, 1926-2003 A Reanalysis of National Weather Service Estimates* (<http://www.flooddamagedata.org/>)



# Federal Standards are Lagging

- Over half of the population of the US lives in a community that has implemented a freeboard
- Over 20 states and territories have a statewide freeboard standard and several others recommend, as a matter of policy, a freeboard standard
- Over 350 communities and states have adopted freeboard standards that either equal or exceed the new FFRMS
- Current EO 11988 uses the base flood elevation (or the 100-year flood) as a standard for non-critical actions and consider the 500-year floodplain for critical actions.
  - Thus currently federal actions may not meet current state or local standards



# How Would the new EO Apply?

- Need to understand two definitions:
  - **Action:** Any Federal activity including (1) acquiring, managing, and disposing of Federal lands and facilities; (2) providing Federally undertaken, financed, or assisted construction and improvements; and (3) conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating and licensing activities”
  - **Critical Action:** Any activity for which even a slight chance of flooding would be too great.

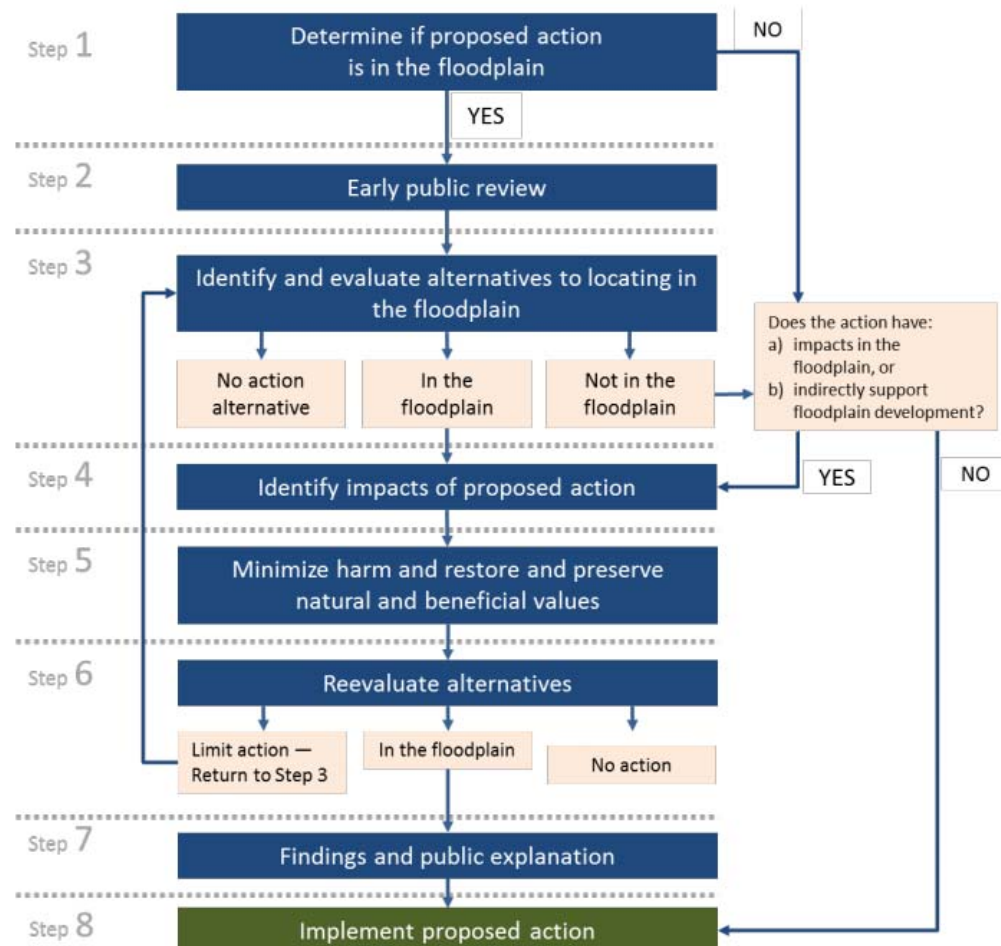
*Federal agencies already have to comply with EO 11988 and current flood risk management standards*



# How Would the new EO Apply?

- The 8-step decision making process in existing EO 11988 is still used
- Adjustments in the new EO such as use of the FFRMS apply to specific steps in the process

Figure 1: Eight-step Decision-making Process for E.O. 11988





# How Would the new EO Apply?

- Applies to federal “actions” in the floodplain
- New Element: Establishes the FFRMS. Floodplain and protection standard is defined both vertically and horizontally by one of three approaches:
  1. Freeboard value approach - Base Flood Elevation (100-year) +2 feet freeboard for non-critical actions and +3 feet for critical actions
  2. 500-year elevation approach
  3. Climate informed science approach

*Applies to Steps 1 and 8*





# How Would the new EO Apply?

- New Element: The head of an agency may exempt an agency action from the FFRMS:
  1. In the interest of national security
  2. Where the agency action is an emergency action

When an action is exempted, the agency head shall rely on the area of land subject to the base flood

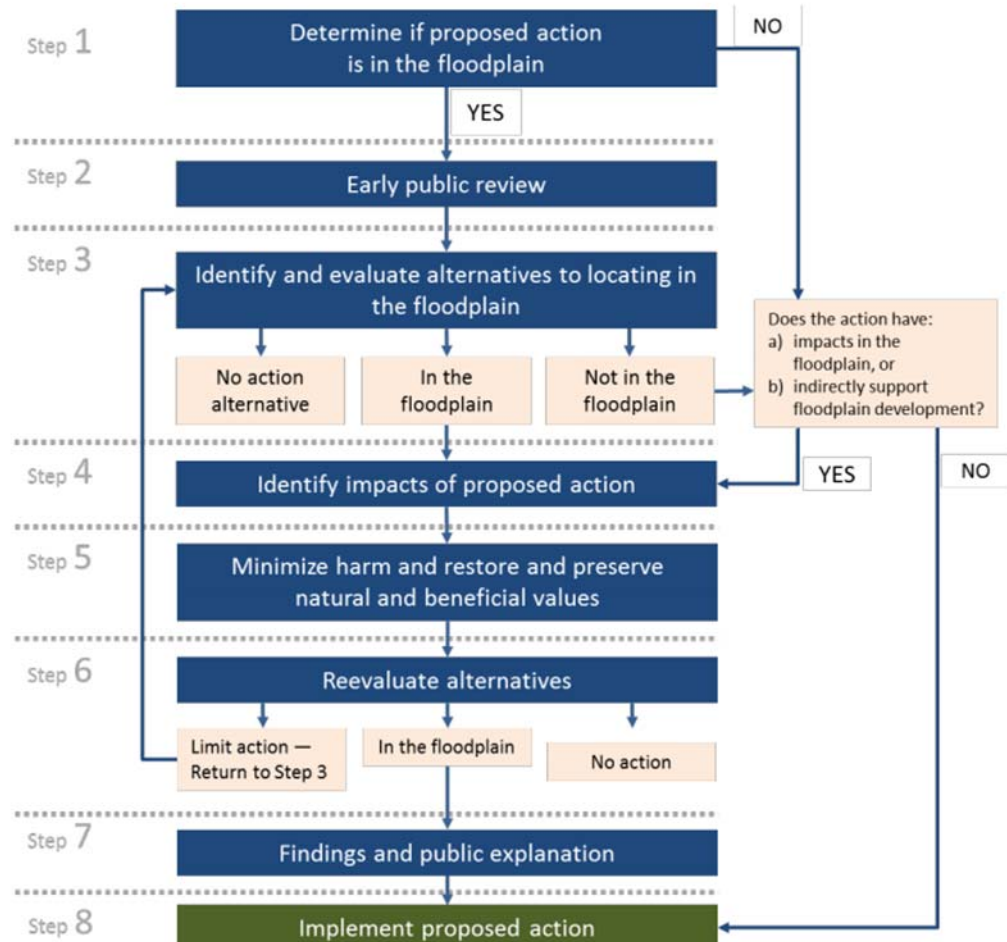


# How Would the new EO Apply?

- New Element: When possible the agency shall use natural systems, ecosystem processes, and nature based approaches when developing alternatives for consideration.

*Could apply to Steps 3-7*

Figure 1: Eight-step Decision-making Process for E.O. 11988





# Considerations for Floodplain Managers

- Development by a federal agency comes to your community
  - Understand how to apply the FFRMS
  - Assist the agency in determining whether action is in the floodplain, ensure that an appropriate alternatives analysis is done
  - Ensure consideration of state and local standards, although draft implementing guidelines unclear whether state/local standards must be followed. This has been a long-standing issue with EO11988
- Community/state participates in a federal program that is subject to the new EO and FFRMS:
  - Understand how to apply the FFRMS
  - Ensure that project budgets/planning considers FFRMS
  - Act as local expert in identifying alternatives including those incorporating natural systems



# Considerations for Floodplain Managers

- Impact on NFIP
  - New EO will not trigger need to update local floodplain management ordinances
  - New EO and FFRMS will not increase flood insurance rates; in fact, it will likely decrease them by 50% or more for buildings subject to the EO
- Impact on levees:
  - Corps of Engineers levee standards already incorporate up to a 3 foot freeboard for design and construction purposes
  - Corps of Engineers already using future conditions and climate change factors for levee design and construction
  - Should have little to no impact on levees and Corps programs overall



# Example of Freeboard Approach

New Wastewater Treatment Plant being funded by a Federal Agency

- Determination whether action is critical?
  - Likely yes!
- Determination of whether the action is in the floodplain is done by initially reviewing existing floodplain data (Step 1):
  - If proposed site is within the floodplain, then apply the appropriate freeboard to the facility for protection purposes
  - If proposed location not in the floodplain but is close to the existing floodplain boundary, the agency will need to determine the ground elevation of the site, and add the freeboard to the base flood elevation to determine if site is in the floodplain. If yes, then also apply the freeboard for protection purposes



# When will the EO take Effect?

- Publication in the Federal Register kicks off a 60 day comment period on Implementing Guidelines for public input
- FEMA to hold 5-6 public meetings/listening sessions for public input across the nation
- Implementing Guidelines will be finalized considering public input
- Agencies will then begin amending/issuing regulations and program procedures (another opportunity for public input)

**FFRMS implementation does not happen until after public input has been obtained!**



# Summary

- The problem being addressed is the continual climb in flood losses and the need to reduce these costs and impacts
- New EO and FFRMS are practical, flexible and implementable
  - FFRMS is a true interagency consensus standard
  - Provides significant agency flexibility in terms of which approach to use
- Is only applicable to federal actions
- Floodplain managers need to understand the FFRMS in particular and how it applies as well as really understand alternatives to ensure development has fewer impacts
- Multiple public input opportunities will exist



## For More Information

- ASFPM has developed a webpage where all information related to the EO and FFRMS will be posted including dates/locations of public meetings. Go to ASFPM homepage at [www.floods.org](http://www.floods.org) and scroll down to link at bottom of page “Federal Flood Risk Management Standard Information Page”
- Federal Register go to [www.regulations.gov](http://www.regulations.gov) and search for FEMA-2015-0006
  - It is important to comment on things you like as well as dislike about the proposed guidelines. Also think about implementation issues and ask questions for the record if the draft guidelines are unclear.





# Thank You

*The present status of floodplain management does not encourage complacency ... On balance, progress has been far short of what is desirable or possible, or what was envisaged at times when the current policies and activities were initiated - GFW*



Credit given to the Natural Hazards Observer and Rob Pudim for all illustrations in this presentation