



vantage point

What FFRMS Means

“It is the policy of the United States to improve the resilience of communities and Federal assets against the impacts of flooding. These impacts are anticipated to increase over time due to the effects of climate change and other threats. Losses caused by flooding affect the environment, our economic prosperity, and public health and safety, each of which affects our national security.”

—Executive Order 13690

President Obama issued Executive Order 13690 on January 30, 2015, which establishes a new Federal Flood Risk Management Standard (FFRMS). The intent is to help ensure that federally funded buildings and infrastructure are constructed to withstand the impacts of flooding (now and in the future), improve the resilience of communities, and protect Federal investments.

Our pre-2015 FFRMS was created by Executive Order 11988 (issued in 1977 by President Carter), which established the Base Flood Elevation as the national standard for federal construction and federally funded construction in identified 1% annual chance floodplains. Like EO 11988, EO 13690 does not prohibit construction in 1% chance floodplains, but encourages avoiding these areas whenever possible and practical. The new FFRMS does not apply to any private

construction in the 1% annual chance floodplain unless federal funds are involved in financing that construction (such as Veterans' Administration and Federal Housing Administration loans, which are now and will continue to be affected). It also does not affect flood insurance premiums, affect community NFIP participation requirements, or alter community floodplain management requirements. Local ordinances will continue to control over projects that have no federal involvement or federal funding.

Per EO 13690, federal agencies can select the best approach of the following three for establishing the flood elevation and hazard area they use in siting, design, and construction (modifying both horizontal and vertical current floodplain and protection standards):

1. Utilizing best-available, actionable data and methods that integrate current and future changes in flooding

based on science in planning and construction standards;

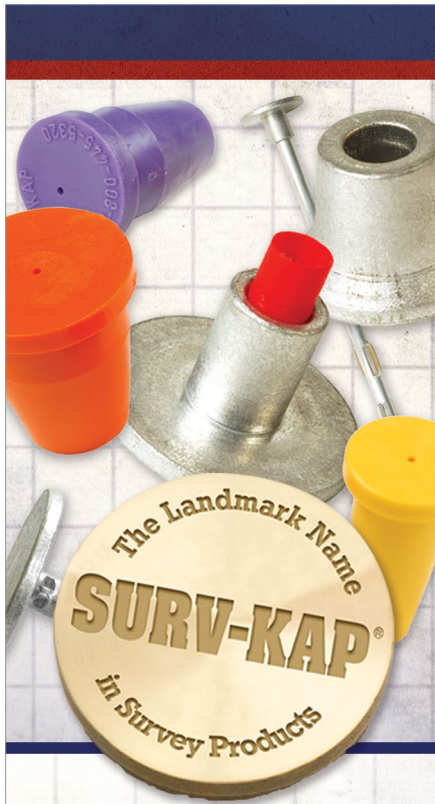
2. Two or three feet of elevation, (depending on criticality), above the 100-year, or 1%-annual-chance, flood elevation; OR
3. Elevate to the 500-year, or 0.2% annual-chance flood water surface elevation.

There seems to be broad misunderstanding that this new standard means that everything needs to be elevated two feet. This is not necessarily the case. The water surface elevation of the 0.2% (500 year) flood event may be less than a foot above Base Flood Elevation. Much of this depends upon site-specific topography.

However, note that 318 counties and communities throughout the US already require 2 feet of freeboard above the Base Flood Elevation (including those where state-wide requirements are for this level of elevation) and 68 require 3 feet of freeboard. The new FFRMS does not introduce a new concept in this regard. Incidentally, 555 counties and communities require 1 foot of freeboard. State-wide requirements of 1 to 3 feet of elevation exist in 22 states, affecting approximately 41% of the population of the US. Levee standards of the Army Corps of Engineers already incorporate up to 3 feet of freeboard in design and construction, as well as future conditions and climate change factors.

Note that it is possible that flood insurance costs will in fact decrease significantly for buildings subject to the new EO. For examples, see the insurance premium tables in the “Rating” chapter of the NFIP Insurance Agent’s Manual (available through FEMA’s website at fema.gov/media-library/assets/documents/103209),

continued on page 50



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CHC Navigation www.chcnav.com	53
Certified Survey Technician www.nspss.us.com	47
Dunham & Morrow www.magneticlocator.com	45
Curt Brown Chronicles www.amazon.com	9
Eastern Drafting admin@easterndrafting.ca	53
FARO www.faro.com	7
Harris Corporation www.harris.com	BC
JAVAD www.javad.com	33-40 (Wingfold)
Leica Gnss.leica-geosystems.us	19
Maptek www.maptek.com	5
Microsurvey www.microsurvey.com	43
Ocean Science www.oceanscience.com	53
Optech ILSC www.optech.com	44
Satlab Geosolutions www.satlabgps.com	41
Seiler solutions.seilerinst.com	52
Sokkia www.sokkia.com	IBC
Spectra Precision www.spectraprecision.com	37
Surv-Kap www.Surv-Kap.com	50
Topcon www.topconpositioning.com	IFC-1
VR Mesh www.vrmesh.com	53

in which it is clear that structures elevated 2 feet above BFE in detailed A-type zones have premium rates at least 50% lower than structures having their lowest floors right at BFE, and similarly elevated structures in V-type zones are eligible for at least 40% rate reductions.

Both EO 13690 and its predecessor EO 11988 recognize the beneficial natural functions of our nation's floodplains, not the least of which is to take the brunt of flooding event impacts and thereby protect areas beyond the 1%-annual chance floodplains. Like its predecessor, but emphasizing it more strongly, the new FFRMS requires that when possible, agencies shall use natural systems, ecosystem processes, and nature-based approaches when developing alternatives for floodplain management consideration. This does not prevent the use of structural approaches but does mean that alternatives shall be weighed in decision-making.

EO 13690 did not go into effect immediately; its publication in the Federal Register triggered the start of a 90-day public comment period on implementing the FFRMS, ending May 6, 2015. A number of public meetings and listening sessions have been scheduled across the country, after which the affected federal agencies will review all input to come up with standards that will begin a new comment period. ■

There is a wealth of information about the FFRMS available on line:

- Executive Order 13690:
whitehouse.gov/the-press-office/2015/01/30/executive-order-establishing-federal-flood-risk-management-standard-and-
- Fact Sheet from the Council on Environmental Quality:
whitehouse.gov/administration/eop/ceq/Press_Releases/January_30_2015
- FEMA's page on the FFRMS:
fema.gov/federal-flood-risk-management-standard-ffrms

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