

**North Carolina Department of Environmental Quality  
Division of Water Infrastructure**

**Guidance for Federal Flood Risk Management Standards Implementation for SRF Program**

On May 20, 2021, President Biden signed Executive Order (EO) 14030, Climate-Related Financial Risk, reinstating EO 13690, Establishing a Federal Flood Risk Management Standard (FFRMS). A memo signed in April 2022 reestablishes the FFRMS for all federally funded projects starting in FY 2022.

The FFRMS will increase the resilience of infrastructure for flooding events caused by climate disasters. The FFRMS applies to actions where federal funds are used for new construction, substantial improvement (i.e., projects worth more than 50 percent of the market value or replacement cost of the facility), or to address substantial damage to structures and facilities.

SRF Funded Projects must check whether any proposed project activities will occur in or affect a floodplain and evaluate potential measures to avoid adversely affecting the floodplain.

Federal Emergency Management Agency (FEMA) products, such as flood maps and Flood Insurance Studies (FIS) can be used to determine if an action occurs in a floodplain.

FFRMS describes three approaches for determining the vertical flood elevation and corresponding horizontal floodplain for federally funded projects. These approaches are designed to recognize and incorporate future conditions rather than rely solely on existing data and information. The approaches currently described in the FFRMS are the following:

1. Climate-informed Science Approach – use best available, actionable hydrologic and hydraulic data and methods that integrate current and future changes in flooding based on climate science and other factors or changes affecting flood risk to determine the vertical flood elevation and corresponding horizontal floodplain in a manner appropriate to policies, practices, criticality, and consequences.
2. Freeboard Value Approach – use the Base Flood Elevation (or 1-percent-annual-chance flood determined using best available data) and an additional height to calculate the freeboard value. The additional height (2' non-critical or 3' critical) will depend on whether or not the action is a critical action (i.e., any activity for which even a slight chance of flooding would be too great).
3. The 0.2-percent-annual-chance Flood Approach – use the 0.2-percent-annual-chance flood elevation (also known as the 500-year flood elevation).

Applicants must select, if they are available, viable alternative locations for their undertakings that will not affect floodplains.

If construction or substantial improvements (i.e., projects worth more than 50 percent of the market value or replacement cost of the facility) will be undertaken or supported in a floodplain because no practicable alternative locations are available, the Environmental Information document should clearly list the measures taken to minimize the risk of flood damage to or within the floodplain.

Such measures could include flood proofing the facility to be constructed, elevating structures above base flood levels, providing compensatory flood storage, or any other means that allow structures and facilities to adapt to, withstand and rapidly recover from a flood event.

In addition, public review is required for each plan or proposal for action taking place within a floodplain. This can be achieved via the Environmental Review process.