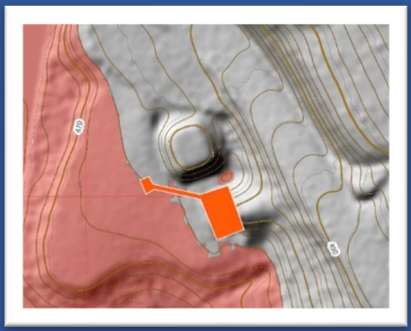
UNDERSTANDING THE FEDERAL FLOOD RISK MANAGEMENT STANDARD (FFRMS) FOR STATE REVOLVING FUND (SRF) PROJECTS

New Hampshire Department of Environmental Services (NHDES)



WHAT IS FFRMS?

On May 20, 2021 Executive Order (EO) 14030, *Climate-Related Financial Risk,* reinstated Executive Order 13690, Establishing a Federal Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input (January 30, 2015), establishing the Federal Flood Risk Management Standard (FFRMS) for federally funded projects (e.g. SRF).

FFRMS determines the level that infrastructure must be resilient to, in order to address current and future flood hazards. FFRMS went into effect for SRF-funded projects beginning in fiscal year 2022. The standard applies to actions where federal funding is used for new construction, substantial improvement projects worth more than 50% of the market value or replacement cost of the facility, or to address substantial structure or facility damage.

HOW WILL NHDES IMPLEMENT THE STANDARD?

FFRMS will be implemented in the design and Environmental Review processes for any SRF-funded Drinking Water and Clean Water Infrastructure projects that meet the criteria defined above. NHDES will consider FFRMS when evaluating all infrastructure projects funded by alternative funding sources: Drinking Water and Groundwater Trust Fund, PFAS Remediation Grant and Loan Fund, etc.

There are three approaches to determine the FFRMS flood elevation and hazard area: 1) Freeboard; 2) Climate-Informed Science; or 3) 500-year Flood approach. In general, NHDES will use the Freeboard approach, which adds three feet to the 100-year floodplain base flood elevation. The 500-year floodplain and climate-informed science approach will be considered if the data is available. This approach is supported by the New England Interstate Water Pollution Control Commission's (NEIWPCC) current TR-16 Guides for the Design of Wastewater Treatment Works.

How is the flood hazard area (FHA) determined for the three FFRMS approaches?

1. The Freeboard FHA is determined by adding 3 feet (for critical actions) to the 100-year flood plain, which is delineated by the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM), to accommodate for future flood elevation.
2. Executive Order 13690 defines the Climate-Informed Science Approach as using 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.

3. The 500-year FHA is the area subject to flooding by the 0.2% annual chance flood, which is delineated by FEMA FIRMs, if the data is available.

What impact will this standard have on the Water Infrastructure Environmental Review Process?

FFRMS will be considered in the environmental review process to establish the FHA by one of the three approaches. NHDES will ask whether alternatives were considered and if any flood resiliency measures are planned to be incorporated into project design, as applicable.

The goal is to minimize potential loss or risk due to flooding and to minimize potential harm to the floodplain. NHDES may also ask for information and/or materials to assist in the determination of the FHA.

What impact will this standard have on the Design Review and/or Groundwater Well Siting Process?

NHDES design review and groundwater well siting programs (if applicable) will consider whether FFRMS needs to be considered for any infrastructure components and if any special considerations need to be incorporated into the design or permitting, as defined in applicable New Hampshire administrative rules and/or FFRMS.

DEFINING FFRMS

Base Flood Elevation (BFE) – FEMA defines Base Flood Elevation as the elevation of surface water resulting from a flood that has a 1% chance of being equaled or exceeded in any given year. Also known as a 100-year flood event.

Critical Action – FEMA defines a critical action to be any activity for which even a slight change of flooding would be too great. NHDES considers Critical Equipment, defined below, to be a critical action.

New Construction – NHDES considers new construction to be any water infrastructure components that will be permanently installed as a result of the funded project; including but not limited to, water treatment facilities, drinking water wells, water infrastructure equipment such as pumps, electrical equipment, water treatment, culverts, etc.

Critical Equipment – NEIWPCC defines critical equipment as conveyance and treatment system components identified for protection including, but not limited to, all electrical, mechanical, and control systems associated with pump stations and treatment facilities. NHDES further considers critical equipment to be any assets that are considered vital where incapacity or destruction would have a debilitating impact to the function of the infrastructure.

HELPFUL RESOURCES

- Flood Maps | FEMA.gov
- Floodplain Management Program | NH Department of Business & Economic Affairs
- EO 14030 Environmental Protection Agency (EPA) Memorandum
- TR-16 Guides for the Design of Wastewater Treatment Works • NEIWPCC
- (Revised Edition) TR-16 Guides for the Design of Wastewater Treatment Works • NEIWPCC
- Loans and Grants | NH Department of Environmental Services
- State Revolving Loan Fund | NH Department of Environmental Services

CONTACT US!

Questions? Please email envreview@des.nh.gov or contact your NHDES project manager.