

Floodplain Regulation 101

Introduction

Streams and rivers change course and flood through natural processes. Therefore, buildings located in floodplains are at high risk for flood damage. Some floodplains experience frequent flooding, while others are affected only when there is a severe storm. To a property owner in a floodplain, it's not so much a question of *if* a flood will damage your property as *when*. Owners of flood-prone structures are encouraged to purchase flood insurance through the National Flood Insurance Program (NFIP) in order to reduce the financial impact of a major flood. And, if you intend to obtain a loan from a federally regulated mortgage lender, the lender must require you to have flood insurance if your home is in the Special Flood Hazard Area (SFHA) or the so-called 100-year floodplain. The term "100-year floodplain" may lead one to believe that in this area, floods happen only once every 100 years. Not so. It actually means a flood in this area has a 1 percent chance of being equaled or exceeded in any year. Here's another way to look at it: over a period of 30 years, a home in the SFHA has a 26 percent chance of being flooded!

The National Flood Insurance Program

Community participation in the NFIP is voluntary for municipalities. Each town must assess its flood hazards and determine whether flood insurance and floodplain land use management would benefit the town's residents and economy. Enrollment in the NFIP allows community members to purchase federally subsidized flood insurance. According to the Federal Emergency Management Agency (FEMA) Community Status Report, approximately 85 percent of all of Vermont cities and towns currently participate in the NFIP.

When a town chooses to join the NFIP, it must adopt and enforce flood hazard regulations for participation. The town's flood hazard regulations must include the minimum federal NFIP standards, but can be more restrictive. Towns participating in the NFIP are required to regulate development in SFHA. Under the NFIP, the term "development" is defined broadly and includes *any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations located within the area of special flood hazard.*

The National Flood Insurance Program standards require that new buildings be elevated or otherwise protected from flood damage. In addition, new development should not result in physical damage to any other property through streambank erosion or increased flood velocities. Flood hazard regulations are intended to restrict inappropriate new development in the floodplain. However, the NFIP minimum standards do not protect existing development that is already at risk of flooding. Furthermore, NFIP minimum standards do not apply to flood prone areas that are not identified on the official Flood Insurance Rate Map (FIRM) that FEMA uses to delineate the floodplain and determine flood insurance premiums. Despite the fact that the FIRMs are used as the standard, sometimes regulatory flood elevations are not available and FIRMs are often out of date and susceptible to inaccuracies. A common myth is that you can only buy flood insurance if you are in a floodplain indentified on the FIRM. The fact is that anyone in a participating community can buy flood insurance, and that flood insurance is less expensive if you are not in a floodplain mapped by FEMA.

Vermont Department of Environmental Conservation (DEC) Model Flood Hazard Regulations

The history of floodplain management is marked by efforts, largely federal, to reduce flood losses by restraining floodwaters by such means as berms, fill, bank armor and levees. However, in recent years there has been a philosophical shift to protecting development from flooding by preventing new development in areas with known flooding and erosion hazards and maintaining and restoring floodplain storage capacity. This is the approach that the Vermont DEC has taken with its Model Flood Hazard Regulations, which were updated in September 2008. The goal of these updated regulations is to promote hazard avoidance, reduce recovery costs and protect water resources. These model regulations include conditions and prohibitions that exceed the NFIP minimum standards by restricting new development in inundation and erosion hazard zones.

The new Vermont DEC model flood hazard regulations consist of three versions:

- a. A stand-alone version appropriate for towns that do not have zoning or access to fluvial erosion hazard maps. Prohibits new structures in the SFHA.
- b. A zoning attachment appropriate for towns that have existing zoning as well as fluvial erosion hazard maps. Allows new structures within the SFHA subject to conditional use review, but prohibits new structures within the fluvial erosion hazard zone.
- c. A zoning attachment appropriate for towns that have existing zoning as well as fluvial erosion hazard maps. Prohibits new structures within the SFHA and the fluvial erosion hazard zone.

Community Rating System (CRS)

The FEMA Community Rating System (CRS) is a voluntary incentive program designed to encourage towns to do more than enforce the minimum NFIP standards. Under the NFIP, flood insurance premium rates are the same in all participating communities, even though some towns do more than regulate development to the minimum NFIP standards. Minimum standards result in few community activities to reduce flood damages to existing buildings, or manage development in areas not mapped by the NFIP, or protect new buildings beyond the minimum NFIP protection level.

The CRS program encourages towns to pursue activities that go above and beyond the minimum NFIP standards, such as restricting all development within the 100-year floodplain, requiring additional construction setbacks, and initiating conservation agreements and citizen education programs. Since these activities can help reduce or eliminate the severity of future flood losses, towns participating in the CRS program are rewarded with discounts to flood insurance premium rates on flood insurance policies sold for properties within the community. Bennington, Brattleboro and Montpelier are currently the only Vermont communities participating in the CRS.

Monitoring Community Compliance

FEMA monitors communities enrolled in the NFIP to ensure that they have adopted an ordinance that meets or exceeds the minimum NFIP floodplain management criteria and verifies that they are effectively enforcing their ordinance. Towns administer the NFIP floodplain management criteria through their flood hazard regulations. If communities do not adequately enforce their floodplain management regulations by allowing improper development within the SFHA, they can be placed on probation and potentially suspended from the flood insurance program. All policyholders in a sanctioned community pay a surcharge fee in addition to their regular annual premiums until the town acts to correct the deficiencies and returns to good standing with the NFIP. Should the town fail to be reinstated, policies are cancelled, leaving at-risk floodplain residents and businesses without flood insurance.

FEMA can also take action against individual properties for failure to comply with flood hazard regulations. Under Section 1316 of the National Flood Insurance Program, if a town has been unable to resolve a violation due to the owner's continued refusal to cooperate, the individual property owner is sanctioned, and not the town as a whole. The Section 1316 sanction can be implemented in instances when an appropriate authority in the state or town submits a declaration to the FEMA administrator specifically stating that the structure is in violation. Once the Section 1316 sanction is put into place, flood insurance for that individual property will no longer be available.

FEMA—or the Vermont DEC on behalf of FEMA—conducts Community Assistance Visits (CAVs) to monitor compliance with NFIP standards. A CAV is a scheduled visit to a town that participates in the NFIP to assess the town's compliance with its floodplain management program. The CAV is also used as an opportunity to provide technical assistance. . A CAV typically involves a tour of the floodplain, a meeting with local officials, and an examination of the town's flood hazard regulations and permit files. . If any issues are identified during the CAV, such as a possible floodplain violation or a deficiency in the town's flood hazard regulations, the town is responsible for resolving the violation or deficiency. Otherwise it risks being suspended from the flood insurance program

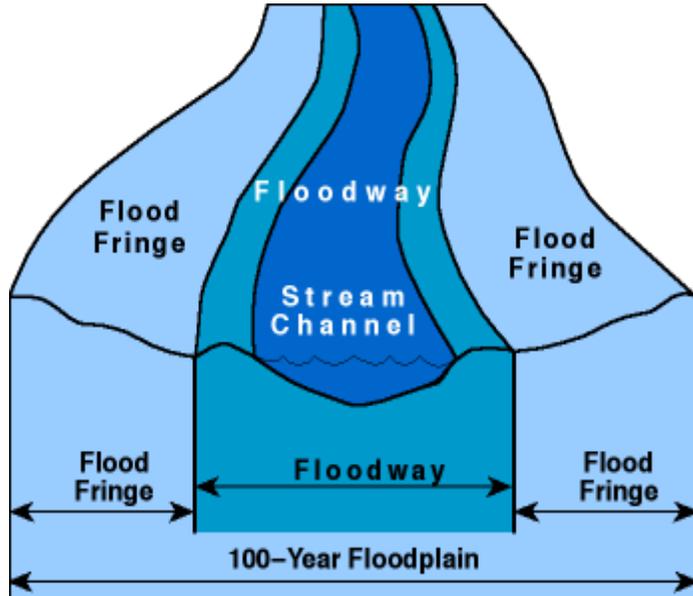
Conclusion

Understanding how the NFIP works can be daunting for local officials. Concerns such as conducting appropriate development review for new construction and substantial improvements within the SFHA, deciding whether to adopt the NFIP minimum standards or more protective flood and erosion hazard standards, managing well established structures that predate the NFIP located in the SFHA, and resolving questions concerning municipal authority to regulate on-site septic systems and farm structures located in the SFHA are all being discussed—sometimes heatedly. If these issues interest you, stay tuned for more articles that evaluate these topics in more detail.

If you have any questions, please contact Milly Archer at MArcher@vlct.org, the Vermont Agency of Natural Resources at ANR.Floodplains@state.vt.us, or you can visit <http://www.vtwaterquality.org>.

To learn more about the DEC Fluvial Erosion Hazard Program, please contact Kari Dolan, FEH Coordinator, at: Kari.Dolan@state.vt.us.

DEFINITIONS



floodplain: A lowland area near a river or stream that is subject to periodic flooding.

100-year flood: A flood that has a 1 percent chance of being equaled or exceeded in any year. Also referred to as the **base flood**.

floodway: The stream channel and the portion of the floodplain that must remain open to permit the passage of the base flood. Deepest and swiftest flood waters and area of greatest danger during a flood.

flood fringe: The area of floodplain between the floodway and the boundary of the 100-year floodplain. Shallower and slower floodwaters but still subject to flooding.

Special Flood Hazard Area

Federal Emergency Management Agency (FEMA): Agency whose mission is to reduce loss of life and property and protect critical infrastructure from hazards.

Flood Insurance Rate Map (FIRM): The official map on which FEMA has delineated the areas of special flood hazards. It is used to determine flood insurance premiums.

fluvial erosion: Erosion caused by rivers and streams that can range from gradual bank erosion to catastrophic changes in river channel location and dimension during flood events.

Special Flood Hazard Areas (SFHA): Areas in a community that have been identified on FEMA maps as susceptible to a 100-year flood, where community's flood hazard area regulations must be enforced.

National Flood Insurance Program (NFIP): Program under which communities are eligible for federal flood insurance if they enroll in the NFIP and administer floodplain management regulations.

Vermont ANR flood hazard management website:
http://www.vtwaterquality.org/rivers/htm/rv_floodhazard.htm.

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