The First State
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February 2021

## Delaware's Floodplain Management Newsletter

## V-Zone Design Certification – Does the NFIP Require It?

A topic I have written about before but may be worth repeating has been the requirement of a V-Zone certificate for coastal construction activities permitted in the mapped V-Zone. Is this a requirement for all NFIP participating communities or just for those participating in the CRS program?

To answer this question let's review what minimal standards concerning the V-Zone are required by the NFIP. There are three specific areas in the Code of Federal Regulations (44 CFR 60.3) that outline the requirements for construction in the V Zone. Briefly summarized…

Article continued pg.4

**Articles in this edition:**


The DNREC Floodplain Management Program is proud to present "Delaware Substantial Improvement and Substantial Damage Guidance, A Resource for Floodplain Managers & Local Officials". This new guidance document provides every local floodplain administrator or staff a single point of reference about the National Flood Insurance Program's (NFIP) requirements for Substantial Improvement (SI) and Substantial Damage (SD). These topics can cause confusion and generate many questions on how to apply the NFIP's rules and regulations. After interviewing a number of NFIP participating communities in Delaware to determine what their questions were and what type of SI/SD programs they have implemented, it has been our goal to answer those questions and provide a step-by-step process that communities can utilize to develop and improve their programs. This guidance plan contains information on the 'Hows' and 'Whys' of SI/SD programs, the preparation, the assessments, and the determinations. We have also provided information on beneficial programs such as ICC, Hazard Mitigation Grants, Flood Mitigation, BRIC, references, and forms. The document will be made available on the DNREC website under the Shoreline and Waterway Management Section, Floodplain Management page. We are also planning for an SI/SD workshop webinar to coincide with the release of this guidance plan. More information will be forthcoming on when and how to register for the planned online workshop. If you have any questions please contact David Warga, email: david.warga@delaware.gov or phone 302-739-9145.

## FEMA Region 3 Coffee Break Webinar March 17,2021

### CONNECTING CLIMATE CHANGE TO HAZARD MITIGATION PLANNING

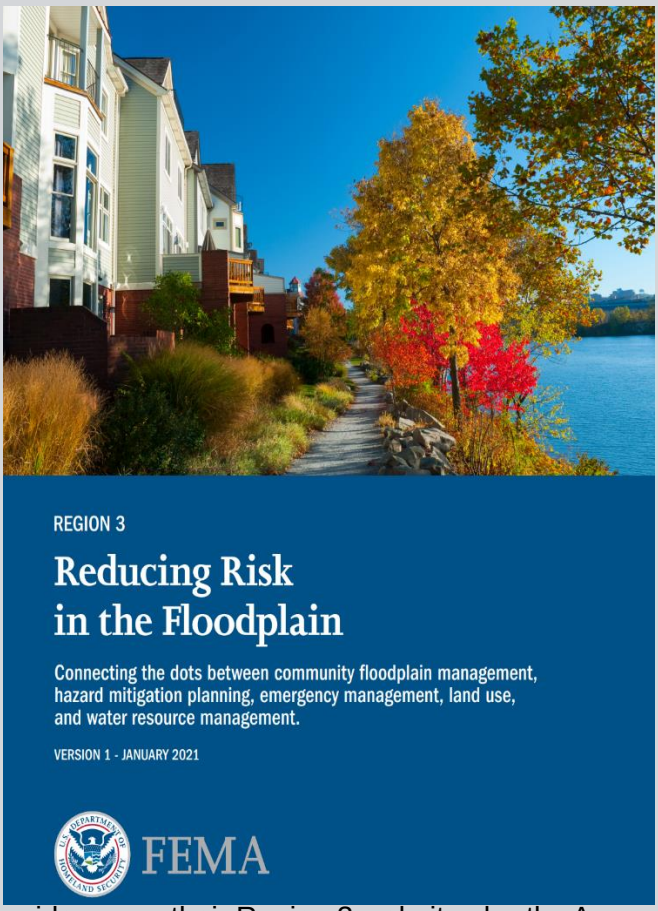
**WHEN:** March 17, 2021

11:00 am – 12:00 pm ET

FEMA

Communities throughout FEMA Region 3 are no stranger to the increasing frequency and severity of natural disasters caused by climate change. Intense storms, heat waves, and extreme flooding all significantly challenge our communities and result in cascading impacts that we need to better prepare for. This webinar will explore where to get data on climate change and how to effectively support mitigation through incorporating this data into hazard mitigation planning efforts.

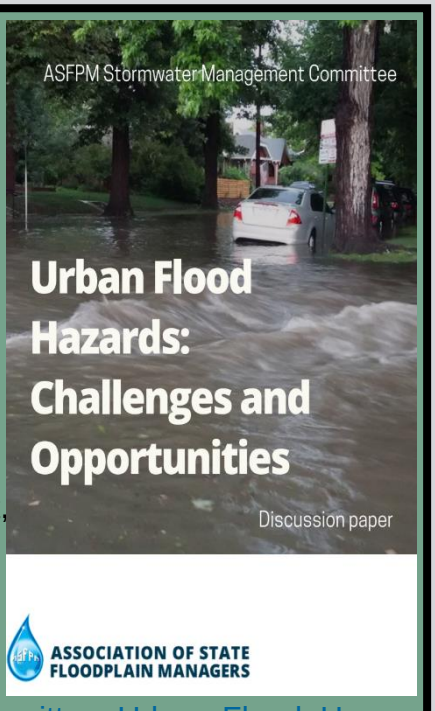
Register: https://www.eventbrite.com/e/fema-region-3-coffee-break-webinars-tickets-38090038330




## FEMA Releases Region 3 **Reducing Risk in the Floodplain**

The challenge and goals many of us (floodplain administrators) face is how can we mitigate and decrease the flood risk in our communities. The aim of this new FEMA publication is to bring attention to the need for us not only to manage our floodplain programs proficiently but to further strengthen our abilities through stressing the importance of identifying potential partnerships such as Hazard Mitigation planners, federal, state and local agency officials, residents and property owners, etc. that stay connected and work together to solve common issues by sharing data and solutions for flood related issues. The document identifies the types of partners that can and should be included in a comprehensive floodplain management program and provides example scenarios that outline common challenges faced and many resources that are available to assist us in effectively managing flood risk. FEMA will be posting this guidance on their Region 3 website shortly. A copy will also be attached to this newsletter for your convenience. FEMA instructors are anticipating a training webinar to Reducing Risk in the Floodplain sometime in April (registration information forthcoming).

The Association of State Floodplain Managers (ASFPM) Stormwater Management Committee recently released a paper concerning the flooding challenges faced by many urban communities. More specifically the paper focuses on urban areas that are located outside riverine and coastal flood zones and experience flooding due to surface runoff conditions and inadequate drainage capacity. The paperlooks at the causes of flooding including historical, stormwater management, and development as well as options on how to manage these flood hazard risks through identification, mapping and education and the challenges that are faced in implementing these strategies such as cost, lack of data, and community acceptance. The discussion provides recommendations and tools available to floodplain administrative officials. The paper can be downloaded at this link: https://asfpm-library.s3-us-west-2.amazonaws.com/ASFPM_Pubs/ASFPM_Stormwater_Committee_Urban_Flood_Hazard_Areas_Discussion_2020.pdf



## V Zone Design Certification – Does the NFIP Require It?

… continued from pg.1

- 44 CFR 60.3(e)(4) – Elevation on pilings and columns so that the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood level…
- 44 CFR 60.3(e)(4) …(ii) - The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components.
- 44 CFR 60.3(e)(5) – The space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system.

All these regulations require a registered professional engineer or architect's certification for structures built in the velocity (V) Zone. To meet this requirement, many communities accept an engineer's or architect's sealed and signed design plans, specifications, or construction details for proposed construction in the V-Zone, in effect certifying that the design meets construction requirements. Certified Plans should include a statement that describes what specifically is being certified. Another option that FEMA recommends is the use of a **V-Zone Design Certificate** that specifically describes what is being certified and is signed by the engineer or architect. Some communities in Delaware have already made the V-Zone Certificate a requirement for building projects located in this flood zone.

In contrast, a community who participates in the Community Rating Program (CRS) is ***required*** to keep a V-Zone Certificate on file for all new and substantially improved buildings in the V-Zone. The 2017 CRS Coordinators Manual (pg. 310-3) states: "A V Zone Design Certificate is needed for new and substantially improved buildings in coastal high hazard areas (V Zones and coastal A Zones, where credited). These are required for buildings constructed or substantially improved after the community's first verification visit under the 2013 Coordinator's Manual."

Based on the above requirements, if your community does not participate in the CRS program it is recommended that the requirement of a **V-Zone Certificate** be implemented in your floodplain management program as it clearly certifies the structure design and methods of construction specified are in accordance with accepted standards of practice to meet the noted V-zone requirements.

# Substantial Improvement in Beach Regulations

Jennifer Luoma Pongratz, CFM, DNREC

The purpose of the Regulations Governing Beach Protection and the Use of Beaches and having a mapped building restriction line is to pull all proposed construction away from a critical resource and to provide a line of defense. However, when a building restriction line is mapped about 20-30 years after a building boom in coastal Delaware there tends to be structures that are already located beyond that line.

A challenge that the Department of Natural Resources and Environmental Control (DNREC) has encountered since this mapped building line was adopted, is how to encourage property owners who wish to massively renovate their houses to comply with the current building line when their existing dwellings are seaward or bisected by the line. With updates to the Regulations in 2016, DNREC incorporated the idea that if a structure was to be substantially improved, it would have to comply with current requirements and standards. Prior to 2016, a project would have to meet the definition of "complete destruction" in order for the Department to require the structure to comply with current standards. How this was applied varied from project to project, but what was common was the attempt by the property owner to do the maximum amount of work without going over a certain threshold. What was that threshold? If the structure was "completely destroyed" it meant that there was enough damage or destruction "by any means whatsoever to the extent that, in the judgment of the Division, 75% or more of the original structure, or if a building, more than 50% of the original foundation pilings, are unsuitable for incorporation into reconstruction of the structure." This was interpreted in a variety of ways. Is the 75% rule used? Is the 50% of pilings rule used? Are both used? How is the 75% determined? By square footage? By volume? By the amount of wall space left? By the number of stories left? How is it determined if pilings are suitable for incorporation into reconstruction of a structure? By engineering standards? Many times creative ways showing a structure was not "completely destroyed" in a renovation were submitted, but rarely were they ever the same. Once there was an existing "suitable piling" that was not even tall enough to reach the lowest horizontal member of the new structure. How is that suitable? It became very apparent that something that could be applied more consistently was needed.

When DNREC began revising the Regulations in 2014, it was critical to take a hard look at what was needed to be achieved and how to achieve it. A method that was commonly used was making a substantial improvement determination as defined in the Federal Emergency Management Agency's (FEMA's) Floodplain Regulations. Substantial Improvement is defined as the reconstruction, rehabilitation, addition, or other improvement to a structure the total cost of which equals or exceeds 50% of the market value of the structure before the start of construction of the improvement. Since this method had been tested and was consistent with local floodplain ordinances, it was found to be the best way to go about it and was inserted in Section 3.4.1 of the regulations. **Continued on next page…**

**Substantial Improvement in Beach Regulations continued…**

Since that section was incorporated into the regulations, applicants seem to make their own determinations prior to submitting a permit application and will move the proposed construction landward of the building line or follow the 4-step process that is spelled out in Section 3.1.1.2 of the Regulations. A substantial improvement determination has yet to be required by DNREC as part of a permit application. However, that could change any day.

The purpose of the 4-step process is to make use of the buildable area as far landward on the lot as possible. In doing so, it also allows construction of a structure that is like the structures around it, in keeping with the neighborhood. However, substantial improvement only becomes a factor if it is found that the proposed renovations are not within the existing structures footprint.

Section 3.5.1 of the Regulations allows for repairs, modifications, modernization, updates, and improvements within the existing footprint without having to relocate or reduce in size. DNREC has also reviewed and approved several applications for these types of renovations.

Ultimately, it is the goal of DNREC to move structures in the coastal area out of harm's way and in doing so reducing the risk to a natural resource. It is not always a clean-cut task but is a challenge that needs to be taken to make development in coastal Delaware more sustainable. For more information, please contact DNREC's Shoreline and Waterway Management Section at 302-739-9921.

# FEMA Intro to Floodplain Management Course

## February 23rd through 25th

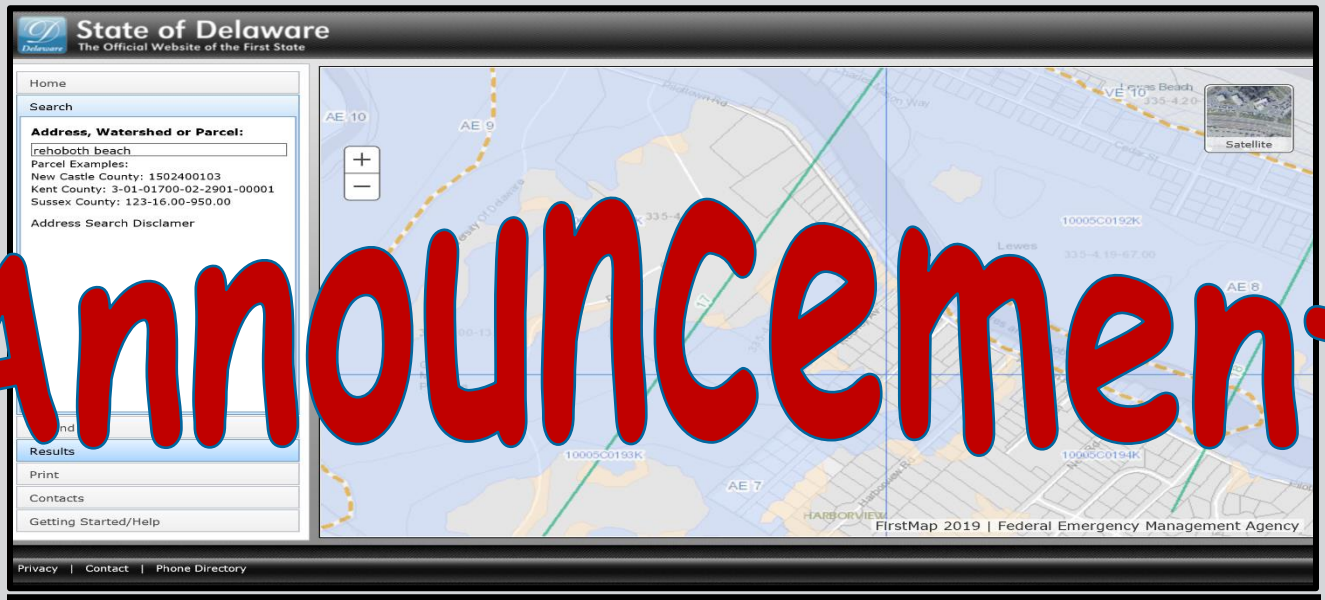
This Introduction to Floodplain Management course is designed to familiarize participants with various aspects of the National Flood Insurance Program (NFIP) to ensure they have the necessary tools to be successful as local floodplain administrators. Seating is very LIMITED!

NO COST!

Register:

FEMA

https://fema.zoomgov.com/meeting/register/vJIsdOCgrjktHLXMiKK8MKhatDagbYY4EXU




# Announcement

## Delaware Floodplain Mapping Prioritization

The DNREC Division of Watershed Stewardship, Shoreline and Waterway Management Section is working on prioritizing floodplain mapping needs in Delaware. If you are aware of any currently mapped floodplain areas that may need updating or unmapped floodplain areas that should be considered for mapping, please reach out to Gina Tonn at Gina.Tonn@delaware.gov . Floodplain mapping for Delaware can be viewed on the Delaware Flood Planning Tool (http://de.gov/floodplaning).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NATIONAL FLOOD INSURANCE PROGRAM
FloodSmart.gov
The Official site of the NFIP

**DNREC**
**Division of Watershed Stewardship**
**David J. Warga, CFM**
**285 Beiser Blvd, Suite 102**
**Dover, DE 19904**
**302-608-5496 office**
**302-233-0757 cell**