
Floodplain Management Today



NEBRASKA DEPARTMENT OF NATURAL RESOURCES FLOODPLAIN SECTION JUNE 2016

Basements in Floodplains

By Mitch Paine, CFM

Basements are a way of life for most Nebraskans. We store things in them, host parties in them, and have bedrooms or home offices in them. They also act as storm shelters, and many of us have weathered high winds or tornados in them. As common as basements are in most of our homes, they are generally not safe for floodprone areas and cause problems for both life safety and property loss.

Also Inside This Issue

Pilger Floodplain Administrator	4
Violations Part II	5
Training Opportunities	7

During flooding in May of 2015, a Fairbury woman drowned in her basement as she sought shelter. Floodwaters rushed in and she couldn't escape. This example highlights one of the reasons why living areas or storm shelters are not allowed below BFE.



Figure 1. A home in DeWitt suffered significant basement flood damage in 2015

Basements also cause headaches for property owners because of their flood damage potential. Thousands of Nebraskans faced extensive flood repairs in their basements during the 2015 flooding. Nearly \$3 million was paid out in NFIP claims in Lincoln, DeWitt, and Beatrice alone, much of it basement damage.

Understanding when basements are allowed or not can be complicated. This article aims to give floodplain administrators a better overall understanding of how to regulate buildings planned

with basements in flood risk areas and a basic overview of insurance and mitigation measures.

Basic Permitting

In Nebraska, new or substantially-improved residential buildings must be built with the lowest floor, including basement, to at least 1-foot above base flood elevation. This requirement underlies all of our community development decisions in floodplains. Often, this precludes a home from having a basement or the property owner must find a location for their new home outside of the special flood hazard area. Homeowners who can't build with a basement are encouraged to install a safe room as a tornado shelter. Many property owners seek a Letter of Map Change to remove their property from the floodplain.

Letters of Map Change

Property owners often pursue a Letter of Map Amendment (LOMA) or a Letter of Map Revision Based on Fill (LOMR-F) to remove their property or building from the floodplain and remove the mandatory purchase of flood insurance requirement. By doing so, the property then lies in Zone X. Many property owners see that as a free pass to build however they want and will often drop a basement in their home. If a property owner has obtained a LOMA, there are few community processes to prohibit a basement, even though it likely would still be floodprone.



Figure 2. Basement flood damage can cause structures to collapse. Notice the steel beam supporting the upper stories on this home.

For the LOMR-F process, a community official does have the ability to influence the permitting process further. An applicant for a LOMR-F must submit to FEMA a community acknowledgement form, which requires a signature and statement from the floodplain administrator. The statement says, “we have determined that the land and any existing or proposed structures to be removed from the SFHA are or will be reasonably safe from flooding...,” in addition to ensuring all other permits are obtained. By signing the form, the floodplain administrator is taking on some responsibility for future safety of that property because they’ve certified that the structure is “reasonably safe from flooding.” Floodplain administrators should request certification by a qualified design professional from the applicant before signing the community acknowledgement forms. The condition of “reasonably safe from flooding,” which seems vague, is further outlined in Technical Bulletin 10 (TB-10).

Technical Bulletin 10

TB-10 outlines an evaluation process to ensure a property located on fill or near the floodplain is reasonably safe from flooding. A number of options, specifications, and technical details are presented that can help floodplain administrators and property owners better understand how to keep buildings safer. Specifically for floodplain administrators, TB-10 lays out a simplified approach to design requirements that communities can adopt into a checklist for applicants. By

meeting all of the requirements of the simplified checklist, a community and the property owner can have some assurances that the property, as designed, will be reasonably safe from flooding. NeDNR would advise requiring LOMR-F applicants to meet this simplified checklist before being given a community acknowledgement form. Doing so can lessen the burden of responsibility of signing this form.

Building Restriction Agreements

If a floodplain administrator wants to ensure that a building as part of a LOMR-F application is as safe as possible from flooding, the community can put conditions on signing the acknowledgement form. The City of Lincoln requires LOMR-F applicants to sign a building restriction agreement that keeps floodplain management regulations on that property. Even though the property owner would hold a LOMR-F, the building restriction agreement still requires the building to be elevated to 1-foot above BFE, exclude a basement, and all other aspects of the floodplain management ordinance. By doing so, Lincoln ensures that property owners can be removed from the floodplain for insurance purposes, but still remain as safe as possible from flooding.

Flood Insurance and Basements

Many pre-FIRM or grandfathered post-FIRM buildings have a basement and carry a flood insurance policy. After flooding events, floodplain administrators often hear from insurance agents that basements are not covered by the NFIP. Basements *do* have coverage, although limited. NFIP coverage includes clean-up expenses as well as items used to service the structure such as furnaces, air conditioners, electrical systems, and heat pumps. Flood insurance policies also cover structural elements such as footings, foundations, and stairways. Improvements, however, are not covered and would include finished walls or floors as well as contents of finished basements. Policyholders should always file a claim after a loss, even if the agent doesn't think basement damage would be covered.

Homeowners should also be encouraged to purchase flood insurance even if they follow all LOMR-F or LOMA processes. Once a property is removed from the floodplain via those processes, property owners can obtain a preferred risk policy, which is much less expensive than a standard flood insurance policy. Additionally, property owners with a basement who are concerned about the cost of flood insurance could fill in their basement and elevate the utilities. By doing so, the lowest floor would be the next higher floor and flood insurance rates could go down.

Reducing Flood Risk

Overall, NeDNR suggests two options to reduce property risk and community liability: adopting a review process consistent with TB-10 for all LOMR-F applications or implementing a building restriction agreement that requires full floodplain compliance regardless of the outcome of the LOMR-F review. By implementing either of these options, you are helping property owners keep their buildings and families safer from flooding, while also helping them obtain letters of map change.

For more information, follow the links below or feel free to contact me or Chuck Chase.

- [LOMR-F application](#)
- [Lincoln Building Restriction Agreement](#)
- [Technical Bulletin 10](#)

Pilger Clerk Wins National Award

After the tornado swept through Pilger on June 16th, Kim Neiman stepped up immediately to perform her duties as clerk, emergency manager, volunteer firefighter, floodplain administrator, and many others. She coordinated the local declaration, the state response, and the rising tide of interested visitors, media, and volunteers.

Kim also knew that she had a responsibility as floodplain manager: almost every part of Pilger is located in the 1% annual chance floodplain. Village residents took shelter in their basements, but most would not be able to rebuild with a basement in the floodplain. Not only would she have to deal with a barrage of rebuilding permits, she would have to deal with the wrath of residents who did not understand why.

Kim requested and helped organize multiple open houses for the community to discuss building requirements in the floodplain, the rules of flood insurance, and the benefits of reducing flood risk. She wanted residents to fully understand the reasons behind the regulations and how they benefit the community. In a small town, rumors start and spread like wildfire, so the opportunity for authoritative sources of information is crucial. She organized 6 workshops specifically focused on both floodplain management but also on safe rooms to address concerns about not being able to build a basement as a storm shelter.

Kim did all of this with no place to live of her own. Her house was in the direct path of the tornado and was completely destroyed. Through it all, Kim came to work at 6:00 am and didn't go home until well into the evening. She knew that her community's recovery hinged on her ability to be an effective emergency manager, floodplain administrator, and grants coordinator. Most importantly, Kim wanted to show her citizens it is possible to build a house that meets floodplain regulations but also results in a livable, functional home. To do that, she made sure her own house was one of the first to be rebuilt, with a compliant crawlspace. She invited anyone and everyone in town to come see it.

On June 23rd, at the national Association of State Floodplain Managers conference, Kim received the Larry R Johnston Local Floodplain Manager of the Year Award. The award is given to a local floodplain manager from around the country for outstanding individual contributions to their community. Kim was a clear winner because she has shown incredible dedication to the field of floodplain management and has helped Pilger recover from being hit by a tornado in 2014.

As a testament to the resiliency of Nebraska communities, Kim has been a champion for keeping Pilger and its families safe. She is able to communicate to her citizens not only the regulations, but the reasons why floodplain management is important. She is a leader in her community and is most deserving of the Local Floodplain Manager of the Year Award. We're proud to call her a fellow Nebraskan!



Figure 3. Kim Neiman receives the award from ASFPM Executive Director Chad Berginnis and Chair Ceil Strauss

Violations and Enforcement Part II: Reaching for the “Big Stick”

By Chuck Chase, CFM



Let us assume the Base Flood Elevation (BFE) is up the bank on the left side of this picture. The floor of the shed pictured is well below BFE and the owner has been uncooperative in moving, raising, or venting it. You have gone and taken an exceptional picture with your cell phone to show how this shed sits well below the BFE. It is a superb picture that tells the whole story of this violation. Imagine your disappointment when the judge throws it out.

In the last newsletter, we explained different tools you can use to motivate property owners to comply without using ‘Big Stick’ enforcement tools. In this article, we will cover tools to document and prepare for the next steps to deal with violations after they’ve been noticed. Some of these tools are actions that might be strictly reviewed, or at times challenged in the court by the landowner. Therefore, here are some recommendations you may wish to consider as you move forward.

The first issue with the situation above is that you used your own cell phone to take the picture. Although this will not cause a judge to throw the evidence out, it could give cause for the defense attorney to subpoena your phone as evidence and then be retained by the court reporter. Be careful which materials and equipment you use and how you use them. Use cameras from work. Make sure there is nothing on them that you would not want a judge to see. Keep everything professional.

Now let’s look at the picture itself. This is a picture of a grey shed by a red house all behind a 4-foot chain link fence. You know that it is the right shed, but how many grey sheds are there and how many red houses or chain link fences. This property could be in Scottsbluff or Dixon County. When the judge asks, “Is this your shed?”, the property owner says, “I own a grey shed but I cannot tell if that one is mine or not.” The judge agrees and your evidence possibly is thrown out.

Instead, begin with an establishing shot, as seen to the right. A good establishing shot will have landmarks in it that cannot be denied, such as a street sign, house number, trees, fire hydrant, etc. You can see that the establishing shot example is an undeniable photo of the owners property. The house number by the door, the trees, the mail box, the hydrant makes this house clearly the property in question. From there you can go to the excellent picture of the shed and no one will confuse it for a shed from the Fire Swamps of Gilder.



In our next article we will discuss specific actions you can take as your community's floodplain administrator. These actions may include filing liens on the subject property, restrictions on use, stop work orders, Section 1316 declarations, or even just withholding the occupancy permit. Some of these may take a court order and some you may be able to do on your own, but all are subject to legal review. Make sure you are documenting in a professional manner. Get your community's attorney involved. Build the case *before* it becomes a case.

Although we are beginning to talk about legal action, we must keep in mind that the bottom line is compliance. It would be best to meet with the property owner before action is taken. If the property owner understands that you have a clear cut case and it is a waste of time and money to defy the community's regulations, they may decide to comply and avoid an enforcement action. Remember that compliance and cooperation is still the ultimate goal.

Violators have to be given a reasonable opportunity to respond, take action, and/or correct the problem. Your community should send a minimum of two written notices (which include a reasonable response/action due date) before proceeding to more harsh actions such as fines or litigation. The violator should be made keenly aware of the specific sections of the community's ordinance that have been violated and the desired action to be taken. Though the violator is afforded a reasonable attempt at correcting the violation and you may not be initiating an enforcement action yet, you are documenting and building your case if it subsequently becomes necessary.

Even if the action does not involve court action, make sure you have adequate documentation, you have remained professional in your actions, and you have been clear to the property owner about the violation and how to resolve it. Even if everything is done perfectly, a judge may still, in rare instances, rule against you. We tell our kids that life is not fair, and sometimes we need to hear that ourselves.

As always, feel free to call me or Mitch Paine on specific cases or for any questions.

Mark Your Calendar

If you have questions about any of these opportunities, please contact Chuck Chase or Mitch Paine.

NeFSMA Annual Conference

The Nebraska Floodplain and Stormwater Managers Association annual conference will be held on **July 21st at the Younes Conference Center** in Kearney. The NeFSMA events are great opportunities for floodplain administrators to learn more about floodplain management and to meet other professionals in the field. Visit <http://nefsma.com/> to register and see an agenda!

CFM Exam

In association with the NeFSMA Conference, Chuck Chase will be giving the Certified Floodplain Manager (CFM) exam on **July 20th**. The test will be held from **1:00 - 4:00 at the Great Platte River Road Archway Monument** (3060 E. 1st Street, Kearney) and a **Study Q&A session** will be held in the same location from **8:00 - 12:00**.

To apply, visit the following website. You will apply for the exam through the Association of State Floodplain Managers, not NeDNR. You must apply by July 6th.

<http://floods.org/index.asp?menuid=405&firstlevelmenuid=180&siteid=1>

On this site, you will find a CFM Exam Prep Guide and other resources to study from. If you are interested in additional information or study materials, please email Chuck at chuck.chase@nebraska.gov.

Dam Safety Workshop

The Nebraska Silver Jackets program is a partnership among various state and federal agencies including NeDNR and the US Army Corps of Engineers. The partnership hosts a workshop every year on a particular flood risk topic. This year, the workshop will focus on dam safety. It will be held on **July 20th from 9:00 - 4:00 at the Great Platte River Road Archway Monument**. Registration is free, but space is limited. CECs will be provided to attendees.

Please visit the following website to register: <http://nefsma.com/event-2252795>

USACE Nonstructural Workshop

On **August 30th**, the US Army Corps of Engineers, in association with NeDNR, will host a nonstructural mitigation workshop in **Lincoln**. The workshop will focus on detailed techniques to reduce flood risk at individual structures like home elevation, business floodproofing, and community-wide considerations. Experts from the USACE will teach and facilitate the discussion. Floodplain administrators and other stakeholders would find this workshop helpful.

Details are still being worked out, but if you are interested, email Mitch at mitch.paine@nebraska.gov to be put on the list.



Nebraska Department of Natural Resources
301 Centennial Mall South, 4th Floor
P.O. Box 94676
Lincoln, NE 68509-4676
29-01-00

WANT MORE INFORMATION?



Visit NeDNR's Floodplain Website at
<http://dnr.nebraska.gov/fpm>



Or Contact

Katie Ringland, PE, CFM, Floodplain Chief & Engineer: Engineering, Mapping, and BFEs, 402.471.2094
Mitch Paine, CFM, Flood Mitigation & State NFIP Coordinator: NFIP, Mitigation, and CRS, 402.471.9252
Jamie Reinke, PE, CFM, Mapping Project Manager & Engineer: Engineering, Mapping, and BFEs, 402.471.3957
Chuck Chase, CFM, NFIP & Outreach Specialist: NFIP and Outreach, 402.471.9422
Stefan Schaepe, EI, CFM, Engineer: Engineering and Mapping, 402.471.0644
Jared Ashton, EI, Engineer: Engineering and Mapping, 402.471.0500
Ryan Johnson, Floodplain Mapping Specialist: Mapping, 402.471.1221
Ryan Werner, Floodplain Mapping Specialist: Mapping, 402.471.3941
Emily Brede, Outreach Specialist: Mapping, 402.471.8608
Shuhai Zheng, Ph.D., PE, CFM, Engineering Programs and Services Division Head, 402.471.3936

This newsletter is produced by the NDNR Floodplain Section and is partially supported by funding under a Cooperative Agreement with the Federal Emergency Management Agency. The contents do not necessarily reflect the view and policies of the federal government.