

A Beginner's Guide to Floodplains

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Agenda

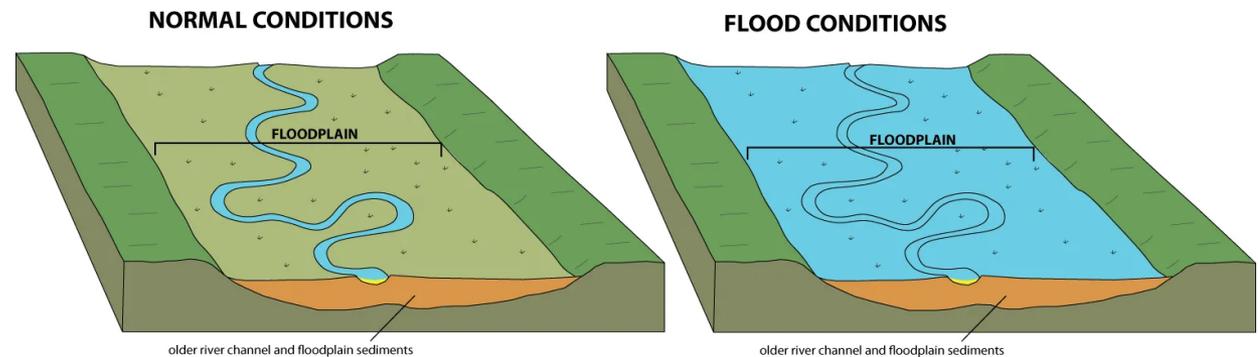
- 1) Introduction to Floodplains
 - 2) Where is the Floodplain?
 - 3) What Happens if I'm in One?
 - 4) Why Should I Care?
 - 5) Who Can I Contact?
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An aerial photograph of a rural landscape in Nebraska, showing a grid of agricultural fields. A large, irregular area in the center and right is highlighted in a semi-transparent teal color, representing a floodplain. The text "An Introduction to Floodplains" is overlaid in white with a drop shadow.

An Introduction to Floodplains

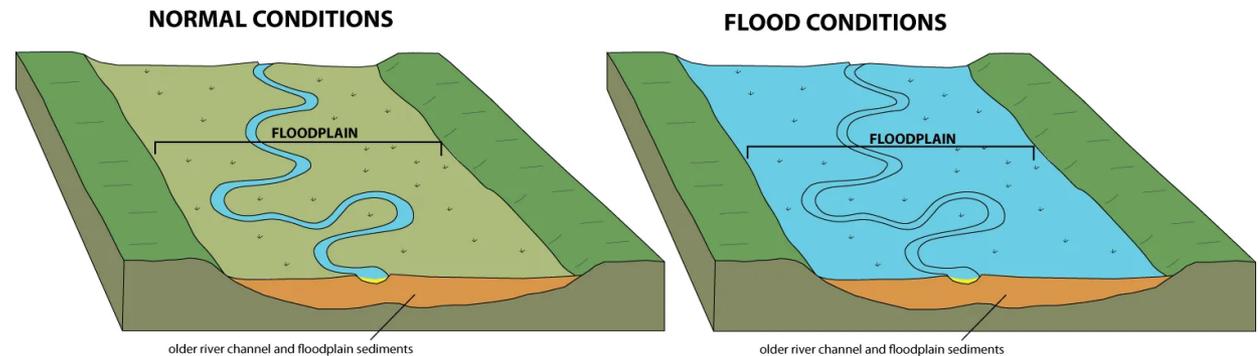
What is a Floodplain?

- Definition: Any land area susceptible to being inundated by water from any source
- Floodplains are where water naturally flows during high-water events



What is a Floodplain?

- More specifically, it is the area that would be inundated during a 1% annual chance flood (100-year flood)



What is a Floodplain?

- Shown as a “zone” on a map
- Are designated by NeDNR in conjunction with FEMA, and are regulated at the local level as a separate zoning district
 - *Only applies to communities that participate in the NFIP*



What is a Floodplain?

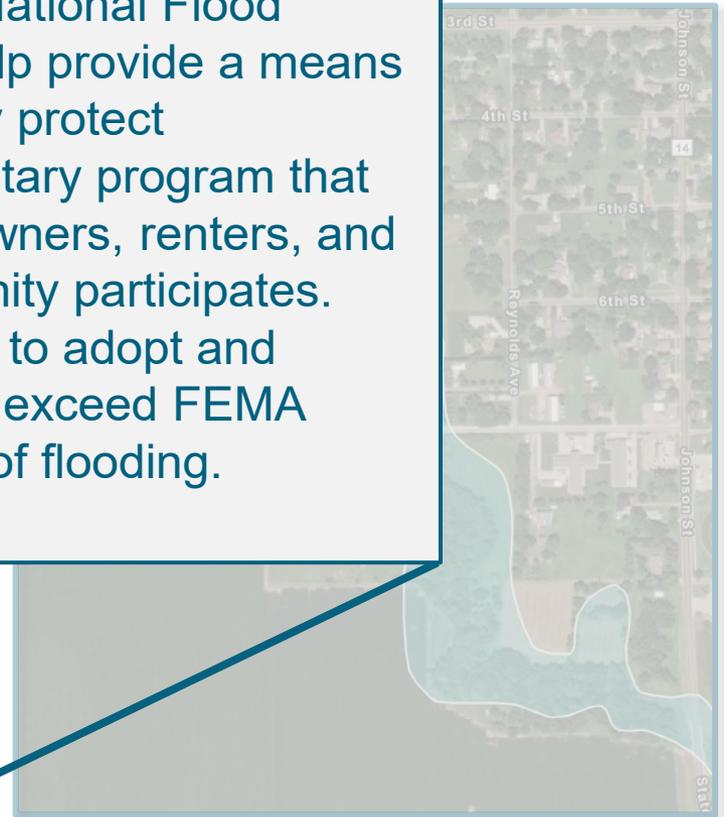
The National Flood Insurance Program (NFIP)

In 1968, Congress created the National Flood Insurance Program (NFIP) to help provide a means for property owners to financially protect themselves. The NFIP is a voluntary program that offers flood insurance to homeowners, renters, and business owners if their community participates. Participating communities agree to adopt and enforce ordinances that meet or exceed FEMA requirements to reduce the risk of flooding.

- Show a map
- Are c
- NeD
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- regul
- level
- zoning district

- Only applies to communities that participate in the

NFIP

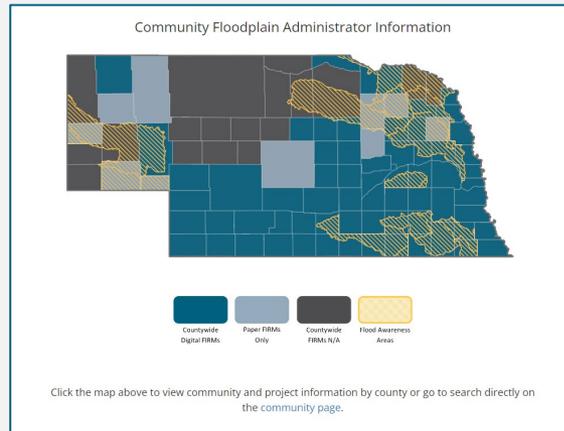


Wh

The National Flood Insurance Program (NFIP)

To find out if your community participates, visit the NeDNR Floodplain Website, and use the “Community Floodplain Administrator Info” tool. Participating communities will have a designated floodplain administrator.

- Sh a n
- Are Ne wit reg lev zor



<https://dnr.nebraska.gov/floodplain>



– Only applies to communities that participate in the



Why the 100-year flood?

- Established in 1973 with the NFIP creating standards
 - Corps of Engineers used around 200 to 500-year flood event for protection level
 - When building dams, levees, and stormwater systems
 - Most communities were using 5 to 20-year events to design local stormwater systems
 - 100-year flood fell between, and acted as a reasonable compromise
- 

Types of Floodplains

- There are many types of floodplains representing different flood risks.
 - Identified by letters and numbers (i.e. Zone A, Zone A-99, Zone X, etc.)
 - Some are regulatory, require additional permits/regulations to be followed
 - Others are to indicate risk
- 

Types of Floodplains

- All flood zones that start with the letter “A” are regulatory zones.
 - Represent a 1% Annual Chance Flood
 - For example: Zone A, Zone AE, Zone AH, Zone AO
- Zones that start with X, C, or B are not regulatory.

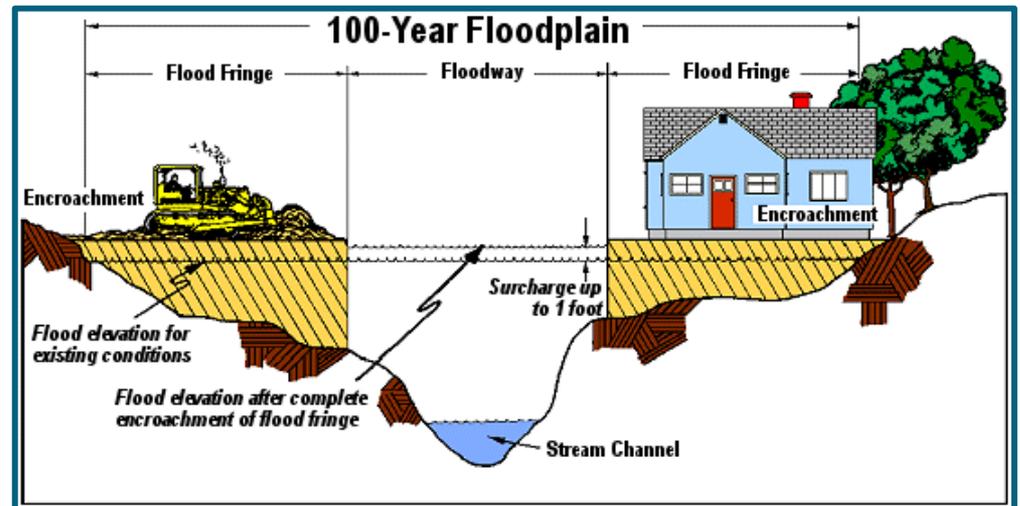
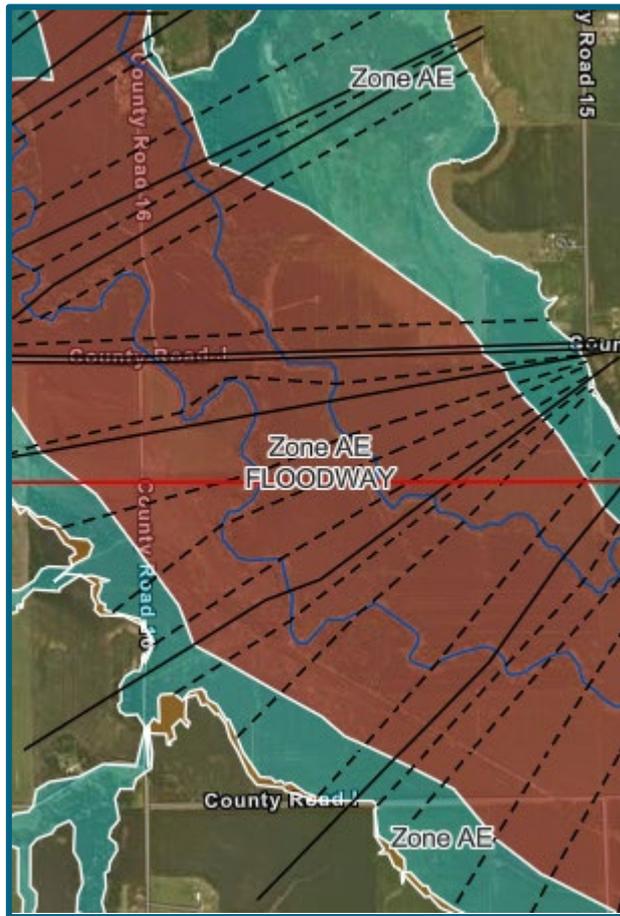
“A” Zone Examples



Types of Floodplains

- Floodway: An area within a floodplain that indicates the zone of highest discharge
 - Structures for human habitation are not allowed here
 - Development in the floodway cannot cause *any* rise in floodwater elevations

Floodway Explained



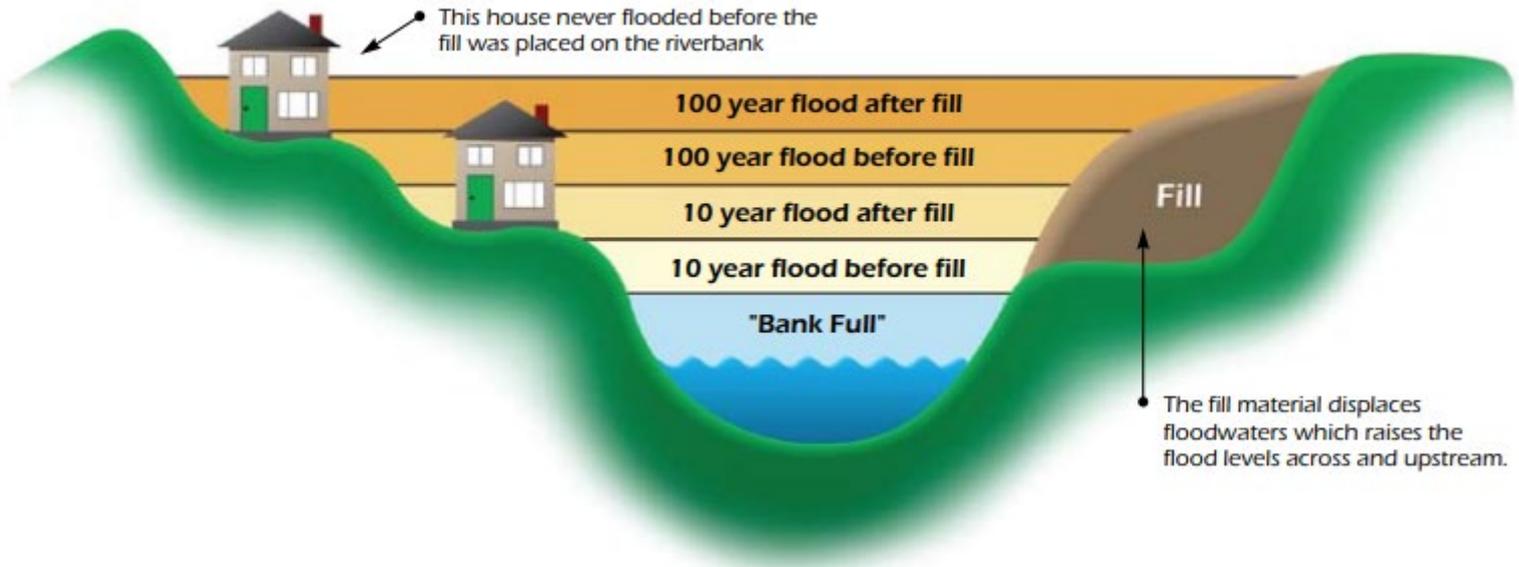
Obstructions and Floodwater Rise

- In A zones, cannot cause more than 1ft
- In floodways, cannot cause ANY



Obstructions and Floodwater Rise

The Effects of Fill on a Floodplain





Where is the Floodplain?

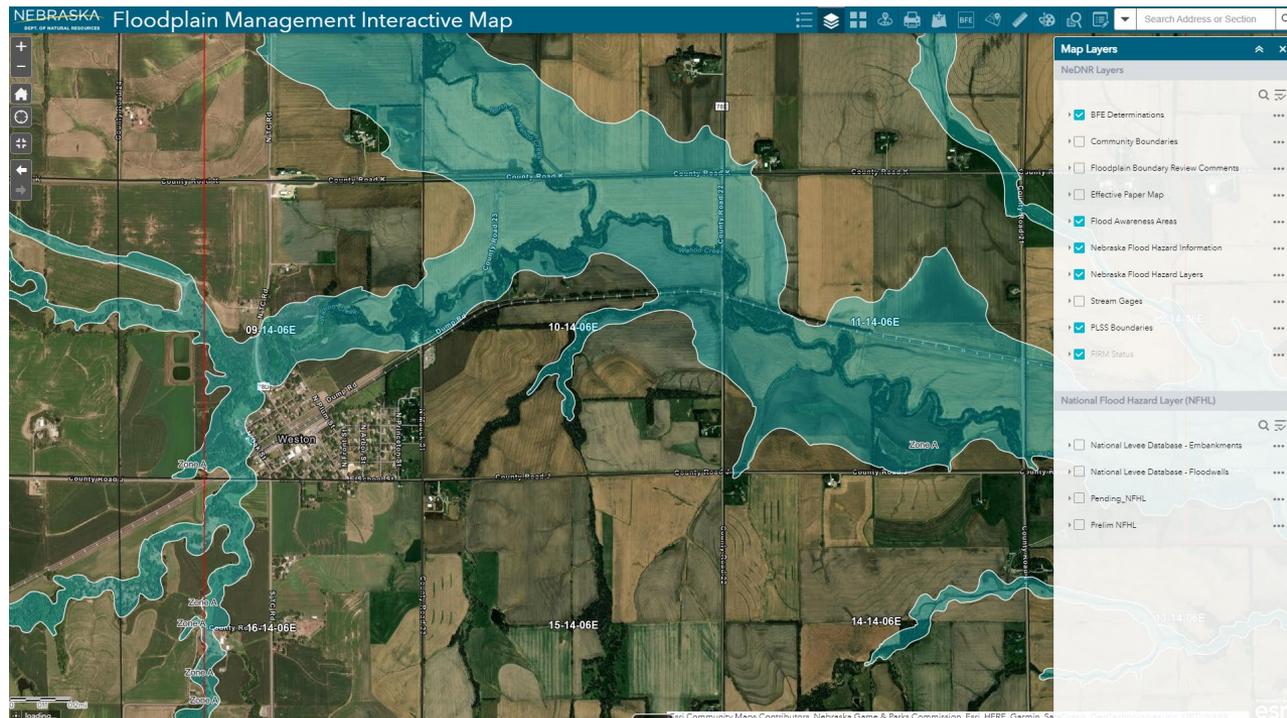
Where is the Floodplain?

- Should be one of the first questions to ask when purchasing a house or are looking to build/dig/develop
- There are multiple ways to find out where the floodplain exists

Where is the Floodplain?

- The easiest way to find the floodplain is by exploring NeDNR's Interactive Floodplain Map

<http://ne.gov/go/floodriskmap>



Quick Demonstration

Where is the Floodplain?

- If you find that your property is in the floodplain, or are unsure, contact your community's **floodplain administrator**
- Again, this should be done *before* purchasing or building on a property

Key Term:

Floodplain Administrator – The floodplain administrator is authorized and directed to administer, implement, and enforce all provisions of the community's floodplain ordinance.



The Floodplain Administrator

The Floodplain Administrator

- Often will be a local clerk, zoning administrator, or even the mayor
 - Oversees all floodplain development
 - Grants floodplain development permits
- 

The Floodplain Administrator

- Is in charge of enforcing floodplain regulations
- If development is occurring without a permit or proper documents, can revoke permits or issue stop work orders
- Authority granted by Nebraska statute and the community's local **floodplain ordinance**

Key Term:

Floodplain Ordinance – Establishes the standards for floodplain development in a community. Grants floodplain administrator the authority to enforce regulations.



What Happens if I'm in a Floodplain?

Before Any New Development:

- You must contact the community's floodplain administrator to find out what permits/documents are needed
- All **development** in the floodplain requires a special permit
- In order to grant those permits, additional documents may be needed first



Key Term:

Development – any man-made changes to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, drilling operations, or storage of equipment or materials.

Development Continued

- All development in the floodplain requires a special permit
- This includes moving material such as dirt or sand, pouring concrete, and building, repairing or adding to an existing structure
- The floodplain administrator will be able to help you through the process

**Key
Term:**

Development – any man-made changes to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, drilling operations, or storage of equipment or materials.

For State Agencies

- Must follow state minimum standards

| | Floodplain Certificate* | Floodplain Permit |
|--|-------------------------|--|
| Mapped and Participating in the NFIP | Required | Required |
| Mapped and Not Participating in the NFIP | Required | Not Required |
| Unmapped and Participating in the NFIP | Required | Required |
| Unmapped and Not Participating in the NFIP | Required | Required (No need for community signature) |

**Key
Term:**

Floodplain Certificate – Required for streams with at least 1sq mile of drainage area. Used to describe the scope of the project, acknowledge that it is in the floodplain, and that it will not cause unacceptable rise.





Floodplain Development Permit Application



| FOR OFFICIAL USE ONLY | | | |
|-----------------------|--------------|---|---------------|
| Jurisdiction: | | | |
| Permit No.: | Date Filed: | | |
| Fee: | Receipt No.: | | |
| Approved? | Y | N | Date Decided: |
| Notes: | | | |

| OWNER | STRUCTURE | APPLICANT <small>If different than owner.</small> |
|-------------------|----------------------------------|---|
| Owner Name: | Structure Address: | Applicant Name: |
| Address: | | Address: |
| City, State, Zip: | City, State, Zip: | City, State, Zip: |
| Phone: | Parcel No: | Phone: |
| Email: | Lot & Block Subd. / PLSS (S-TR): | Email: |
| | | License No: |

| PROJECT INFORMATION | | | |
|--|--|--|--|
| Project Type: | Residential | Commercial / Non-Residential | Fences / Walls |
| <small>Check all that apply</small> | <input type="checkbox"/> New Construction - Detached | <input type="checkbox"/> New Construction - Attached | <input type="checkbox"/> Remodel / Rehab |
| | <input type="checkbox"/> Grading / Fill / Excavation | <input type="checkbox"/> Mobile Home | |
| | <input type="checkbox"/> Other: | | |
| Description of proposed Work: | | | |
| Cost of Improvements for this project: | | | (a) |
| <small>Attach an itemized cost estimate. See FEMA's "Included and Excluded Costs for Damage Repair Estimates".</small> | | | |
| Appraised Valuation of the Structure: | | | (b) |
| <small>Attach assessment documents.</small> | | | |
| Calculate the following: (a) ÷ (b) x 100 = (c) | | | (c) % |
| Is the project a substantial improvement? | | | Y N |
| <small>If (c) value is greater than or equal to 50%, then the project constitutes substantial improvement.</small> | | | |

| FLOODPLAIN INFORMATION | | | |
|--------------------------------------|---------------------|----|--|
| FEMA Flood Zone: | A | AE | X (shaded) Other |
| Base Flood Elevation: | NGVD(29) / NAVD(88) | | |
| Required Flood Protection Elevation: | NGVD(29) / NAVD(88) | | |
| Is the property within the Floodway? | Y* | N | <small>*If any work is proposed within the Floodway, a no-rise certification must be attached.</small> |

Appendices | 95

| REQUIREMENTS | | |
|---|---|---------------------------------|
| Structure: | <input type="checkbox"/> Elevated | <input type="checkbox"/> Vented |
| <small>Apply: If the structure is within an Elevation Certificate.</small> | <input type="checkbox"/> Flood Proofed | <input type="checkbox"/> N/A |
| Structure: | Y | N |
| <small>Structure is required for all new structures, additions, and substantial improvements.</small> | | |
| Structure: | <input type="checkbox"/> Dry (non-residential only) | |
| | <input type="checkbox"/> Wet | |
| Structure Elevation: | NGVD(29) / NAVD(88) | |
| Structure / Equipment Elevation: | NGVD(29) / NAVD(88) | |
| Structure Area: | Square Feet | |
| Structure Openings*: | Openings | |
| Structure Openings: | Square Inches | |
| <small>Structure drawings are proposed, construction details and drawings must be attached.</small> | | |

| SUBMITTAL DOCUMENTS | |
|---|---|
| Structure Application | <input type="checkbox"/> No-Rise Certificate (floodway only) |
| Structure Map | <input type="checkbox"/> Pre-Construction Elevation Certificate |
| <small>Structure Map (include regulatory floodplain / floodway)</small> | <small>(for new structures / additions)</small> |
| Structure Grading Plan | <input type="checkbox"/> Less than 1' Rise Determination |
| Structure Plans / Construction Specifications | <small>(for SFHA without floodway)</small> |
| Structure Proofing Certificate (as necessary) | <input type="checkbox"/> Other (describe): |
| Structure Vent Specifications (as necessary) | |

Structure drawings are not changing as a result of site work, a current topographical map of the site will suffice for grading plan. If structures are proposed, the submittal must include foundation design and floor level plans must detail the location, elevation, and design of mechanical equipment, venting, and flood-venting. Additional information and materials may be required.

Certification

I, THE ABOVE INFORMATION IS CORRECT AND AGREE TO CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE APPROVED PLAT, PLANS, AND SPECIFICATIONS NOTED HEREIN AND IN STRICT COMPLIANCE WITH ALL PROVISIONS OF APPLICABLE REGULATIONS.

| | | |
|-----------|------------|------|
| Signature | Print Name | Date |
|-----------|------------|------|

| FOR OFFICIAL USE ONLY | |
|--------------------------|-------------------------|
| Administrator Signature: | Approval Date: |
| | Permit Expiration Date: |

Once a Permit is Received:

- Ensure that you are following the permit requirements
 - Stay connected with the floodplain administrator and communicate any major progress or difficulties
 - The floodplain administrator may inspect/review progress at various times to verify compliance
- 

After Construction:

- For structural development
 - A post-construction **elevation certificate** must be completed to ensure the permit was followed
 - Completed by a surveyor, and given to the floodplain administrator

**Key
Term:**

Elevation Certificate – Certificate used to certify building elevations. Provides a way for a community to document compliance with the community's floodplain management ordinance.

Existing Structures

- Flood insurance is required for homes in the floodplain with a federally backed mortgage/loan
- All improvements, repairs, or additions must be permitted
- May not conform to the regulations in the community's ordinance
 - i.e. built before regulations were in place, grandfathered

Existing Structures

- For structures that are grandfathered:
 - They may continue to exist as is
 - Flood insurance required with federally backed mortgage
 - **Substantial improvements/damage** will result in the structure needing to comply

Key Term:

Substantial Damage– means damage sustained by a structure whereby the cost of restoring the structure would equal or exceed 50 percent of the market value of the structure.

Key Term:

Substantial Improvement– means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure.

Existing Structures, 50% Rule

- If an existing, non-conforming home is improved or damaged
 - If damaged, floodplain administrator will complete an inspection
 - The cost of improvements/repairs must be recorded before development
 - A permit is required after the cost is determined
 - If costs are above 50%, must be brought into compliance

When it Floods:

- Floodplain administrators will contact you, notifying you of the need for permits to repair
- If is a non-conforming home, will notify of the need to inspect
 - Substantial improvement/damage applies
- Owners with flood insurance should file a claim immediately after
 - Information on claim process can be found on NeDNR's Insurance Webpage
<https://dnr.nebraska.gov/floodplain/flood-insurance>



An aerial photograph showing a vast rural landscape in Nebraska. The foreground and middle ground are dominated by large, interconnected areas of blue water, indicating significant flooding. A small town or village is visible in the center, surrounded by water. The background shows rolling hills and fields under a clear sky. The overall scene conveys the impact of flooding on agricultural and residential areas.

Why Should I Care?

Well...

1. Without a permit, you don't have an understanding of how to build safely
 - Would be endangering yourself or others
 - Would be at an increased risk of losing life and property

2. You could be liable for damages caused by unacceptable amounts of floodwater rise
- Most developments in the floodplain will cause some degree of rise
 - If not permitted with a determination of rise, could cause damage to those around you
 - Would be liable for damages, court fees, etc.
 - This applies to private and public entities
- 

3. Could be violating federal law regarding wetlands protection or endangered species
 - The floodplain administrator can provide information, or find out
 4. Could end up paying much higher flood insurance premiums
 - Part of the rating methodology for flood insurance is elevation of lowest floor
- 

5. Violations constitute a misdemeanor offense

- Would receive notice of a violation with a timeframe for corrective actions to take place
- After the time period expires, could be charged with a misdemeanor and a daily fine up to \$500

6. Could threaten the community's standing in the NFIP

- If FEMA determines the community to be out of compliance, they could be removed from the NFIP
- Would result in a loss of flood insurance coverage for all community members
- Community and citizens would be ineligible for federal disaster assistance



Who Can I Talk To?

Floodplain Administrators

- Every participating community has a floodplain administrator
 - They oversee local floodplain development
 - They understand the regulations, and what permits are required
 - They can provide information on the flood history in your area
 - They are your most valuable resource

Insurance Agents

- Can help weigh benefits and costs
- Flood insurance is recommended, even if you're not in the floodplain
 - 40% of the flood insurance claims from 2019 were from outside of the floodplain
 - Just 1 inch of water can cause \$25,000 in damage
- Insurance agents that work with the NFIP can give you a quote

Registered Surveyors

- Complete elevation certificates
 - Depending on the elevation study, can help remove your property from the floodplain
 - May improve your insurance rates
- Professional Surveyors Association of Nebraska:
nebraskasurveyor.com
- Nebraska Board of Examiners for Land Surveyors:
nbels.nebraska.gov



Professional Engineers

- Can provide suggestions for flood protection measures
- Engineering Certificates for floodproofing
- State of Nebraska Board of Engineers and Architects:
ea.nebraska.gov
- Nebraska Society of Professional Engineers:
nspenebraska.org



The NeDNR Floodplain Management Section

- Oversees the NFIP and NFIP participating communities in Nebraska
- Can provide technical assistance regarding NFIP and State regulations
- Can provide resources and contact information
- Contact us:
dnr.nebraska.gov/floodplain/contact



Questions?



Contacts

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