Laying the Groundwork for Permitting Non-Structural Development

Elijah Kaufman, CFM
NFIP & Outreach Specialist
Nebraska Department of Natural Resources
Floodplain Management

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DEPT. OF NATURAL RESOURCES

AGENDA

1) General Permitting
2) Defining Development
3) Permitting Obstructions
4) Permitting Unobstructive Development
5) AO and AH Zones
6) How to Monitor for New Development

GENERAL PERMITTING

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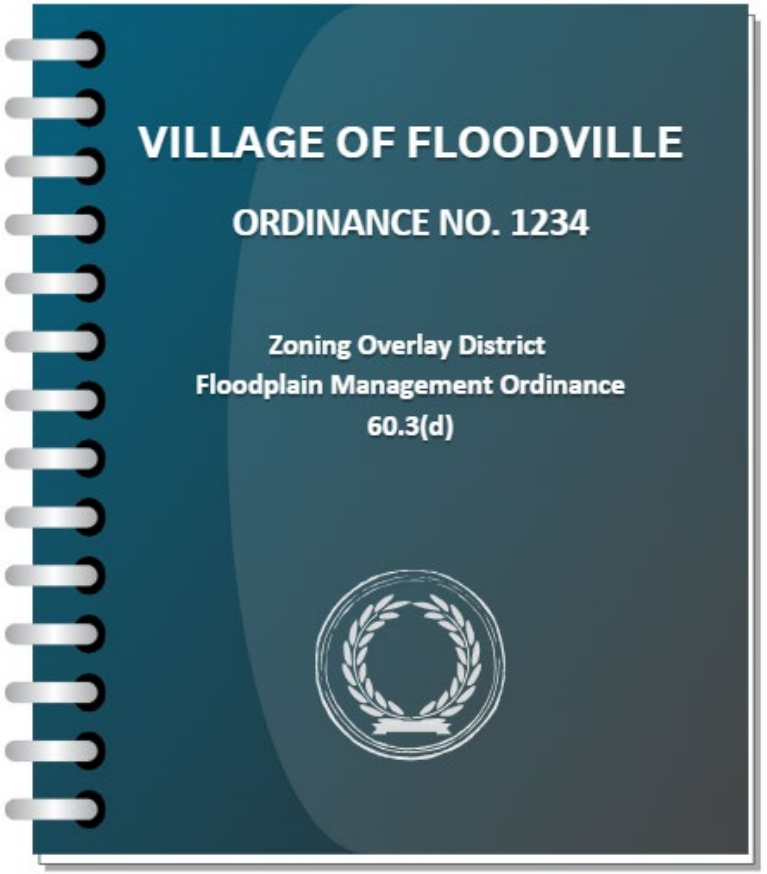
GENERAL PERMITTING

- A community's floodplain ordinance is activated whenever work is proposed in the floodplain



GENERAL PERMITTING

Establishment of Zoning Districts:

A floodplain development permit shall be required before any development, construction, or substantial improvement is undertaken. No person, firm, corporation, government agency, or other entity shall initiate any floodplain development without first obtaining a floodplain development permit.

GENERAL PERMITTING

- If work has begun unpermitted with or without the knowledge of the community:
  - The enforcement section of the floodplain ordinance is activated
  - A path towards compliance must be identified
  - The work must either be permitted, or the area returned to original state

DEFINING DEVELOPMENT

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DEFINING DEVELOPMENT

Development – any man-made changes to improved or unimproved real estate, including but not limited to…

DEFINING DEVELOPMENT

Nebraska Administrative Code Title 455, Chapter 1

002.16 Obstruction. *"Obstruction" shall mean any wall, wharf, embankment, levee, dike, pile, abutment, projection, excavation (including the alteration or relocation of a watercourse or drainway), channel rectification, bridge, conduit, culvert, building, stored equipment or material, wire, fence, rock, gravel, refuse, fill, or other analogous structure or matter which may impede, retard, or change the direction of the flow of water, either in itself or by catching or collecting debris carried by such water, or that is placed where the natural flow of the water would carry such structure or matter downstream to the damage or detriment of either life or property*

DEFINING DEVELOPMENT

- Development also includes:
  - Work by any entity, private or public
  - Work by the community
  - Maintenance (roads, utilities, stormwater systems)
  - Temporary storage of equipment or material
  - Temporary modification of grade


PERMITTING
OBSTRUCTIVE
DEVELOPMENT
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OBSTRUCTIVE DEVELOPMENT

- Realistically, most development is going to have *some* impact on flowing water
- Obstructions can include bridges, roads, levees, berms, fill (adding or removing), storage piles, picnic shelters, etc.
- So, how do obstructions get permitted? Depends on flood zone.

QUICK FLOOD ZONE REVIEW

Zone A: No BFEs determined, general floodplain boundary.

Zone AE, no floodway: BFEs determined, but without a floodway.

Zone AE – Fringe: The area of the floodplain immediately outside of a designated floodway.

Floodway: The area of highest floodwater flow, must be preserved to ensure efficient movement of water.

STEP 1: PROJECT SCOPING

- When reviewing development proposals, obtain the full scope of work
  - Subdivisions, elevated houses, RV pads, etc. may all use fill before any structures are placed
- Ask for site plans, grading plans, elevation/survey data…

STEP 2: DETERMINING IMPACTS

Zone A

Zone AE, no floodway

Zone AE – Fringe

Floodway

1

Must determine the potential impact of the development on floodwater flow/elevation.

Proof must be provided that the development will not result in unacceptable cumulative floodwater rise during the base flood (max. 1ft).

STEP 2: DETERMINING IMPACTS

Zone A

Zone AE, no floodway

Zone AE – Fringe

Floodway

2

If the development will result in more than 1ft of rise:

- Developer may want to pursue a CLOMR/LOMR
- May choose to modify the proposal to reduce the impact

Floodplain administrators must be aware of their neighboring developments. Just 1 inch of rise could be considered unacceptable.

STEP 2: DETERMINING IMPACTS

Zone A

Zone AE, no floodway

Zone AE – Fringe

Floodway

3

To determine the base flood elevation (BFE), have the local floodplain administrator request them from NeDNR.

STEP 2: DETERMINING IMPACTS

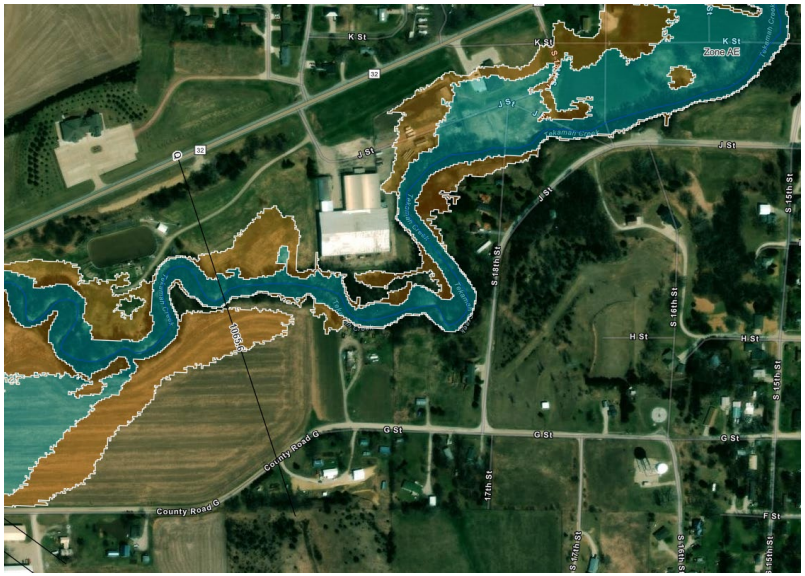
Zone A

Zone AE, no floodway

Zone AE – Fringe

Floodway

1



Like A-zones, proof must be provided that the development will not result in unacceptable cumulative floodwater rise during the base flood (max. 1ft).

STEP 2: DETERMINING IMPACTS

Zone A

Zone AE, no floodway

Zone AE – Fringe

Floodway

2

If the development will result in more than 1ft of rise:

- Developer may want to pursue a CLOMR/LOMR
- May choose to modify the proposal to reduce the impact

Floodplain administrators must be aware of their neighboring developments. Just 1 inch of rise could be considered unacceptable.

STEP 2: DETERMINING IMPACTS

Zone A

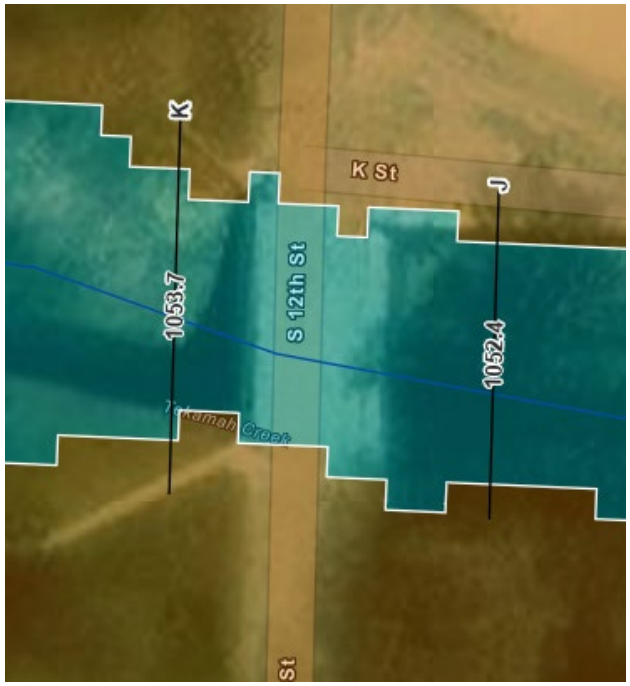
Zone AE, no floodway

Zone AE – Fringe

Floodway

3

BFEs can now be determined using the Flood Insurance Study.



STEP 2: DETERMINING IMPACTS

Zone A

Zone AE, no floodway

Zone AE – Fringe

Floodway

1

In the flood fringe, determinations of rise are no longer required (within reason).

STEP 2: DETERMINING IMPACTS

Zone A

Zone AE, no floodway

Zone AE – Fringe

Floodway

2

BFEs must be determined using the Flood Insurance Study.

Double check development location to ensure it does not enter floodway.

Pay attention to the “Limits of Study”.

STEP 2: DETERMINING IMPACTS

Zone A

Zone AE, no floodway

Zone AE – Fringe

Floodway

1

In the floodway, new developments cannot cause ANY floodwater rise at all.

STEP 2: DETERMINING IMPACTS

Zone A

Zone AE, no floodway

Zone AE – Fringe

Floodway

2

In the floodway, new developments cannot cause ANY floodwater rise at all.

No-rise determinations must be made by a registered, professional engineer.

Floodways must be preserved to allow for safe and efficient floodwater movement.

**Reminder: New structures for human habitation are not allowed in the floodway.

STEP 2: DETERMINING IMPACTS

Zone A

Zone AE, no floodway

Zone AE – Fringe

Floodway

3

Examples of land uses with minimal impact:

- Agriculture
- Residential lawns, gardens, parking, and play areas
- Nonresidential uses such as loading areas, parking, and airport landing strips
- Public and private recreation or green space

Valparaiso, NE

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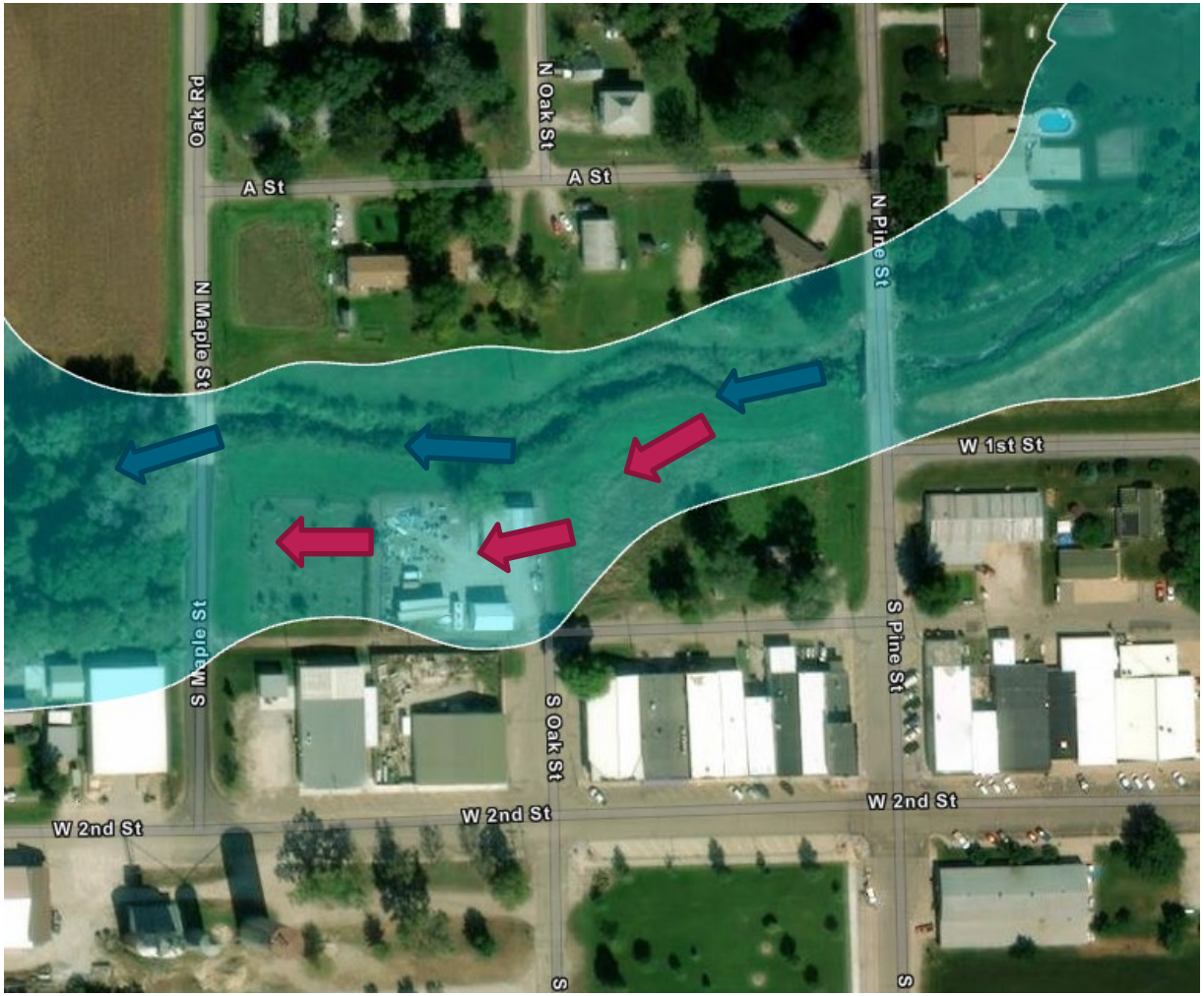
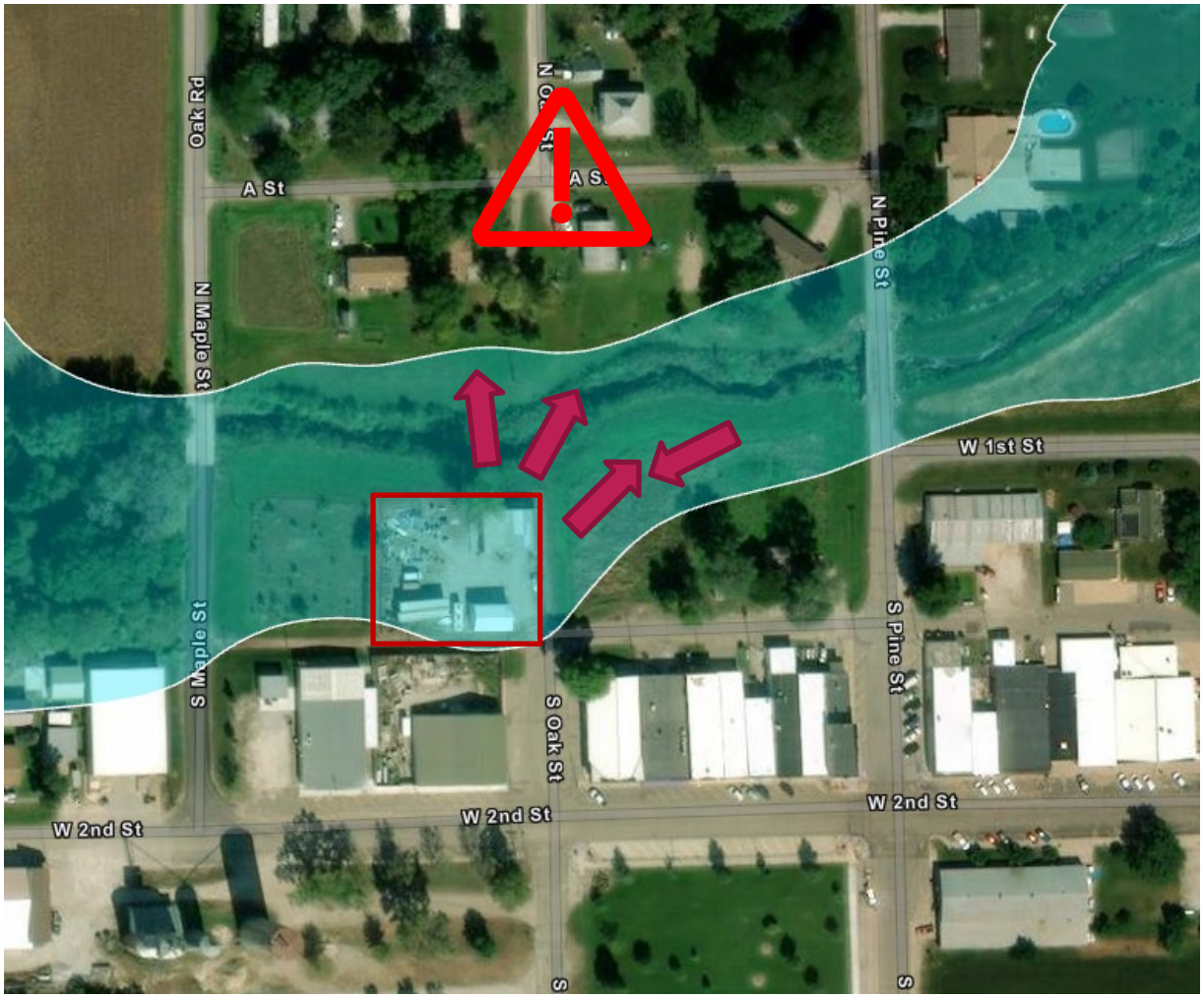


Valparaiso, NE



STEP 3: PERMITTING

- The permit application can only be approved once impacts have been determined and all other permits are obtained
- Ensure the permit contains all elevation and compliance requirements
- Burden of proof is on the applicant, not the FPA

STEP 4: MONITORING

- Complete periodic inspections of the site
- Take photographs showing key aspects of the work
- If the work is not following the permit, notify the owner/developer immediately using official documentation
  - May need to stop work AND re-apply for a new permit

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UNOBSTRUCTIVE DEVELOPMENT

- In some cases, work can be done in the floodplain that will ultimately not modify the grade
- Regardless, it still requires a floodplain development permit and,
- Developments must be shown they will not cause unacceptable rise
  - May not need full engineering study

UNOBSTRUCTIVE DEVELOPMENT

- Use common sense. Very rarely will development not cause an obstruction.
- If you are unsure, contact the NeDNR floodplain team for assistance.
- Always ask for more information if needed! Your ordinance says you can!

UNOBSTRUCTIVE DEVELOPMENT

- Take pictures of area before AND after development occurs
- Proof the development is unobstructive must be provided at completion
    - Pictures, elevation certificate/survey, proof of accuracy to permit

Image Source: www.lincolnshirelive.co.uk

UNOBSTRUCTIVE DEVELOPMENT

- Examples could include:
  - Boring/burying cable
  - Replacing underground pipes
  - Resurfacing roads
  - Biking trails in parks

If original grade is maintained…

Image Source: AllTrails.com – Pioneers Park, Lincoln NE

UNOBSTRUCTIVE DEVELOPMENT

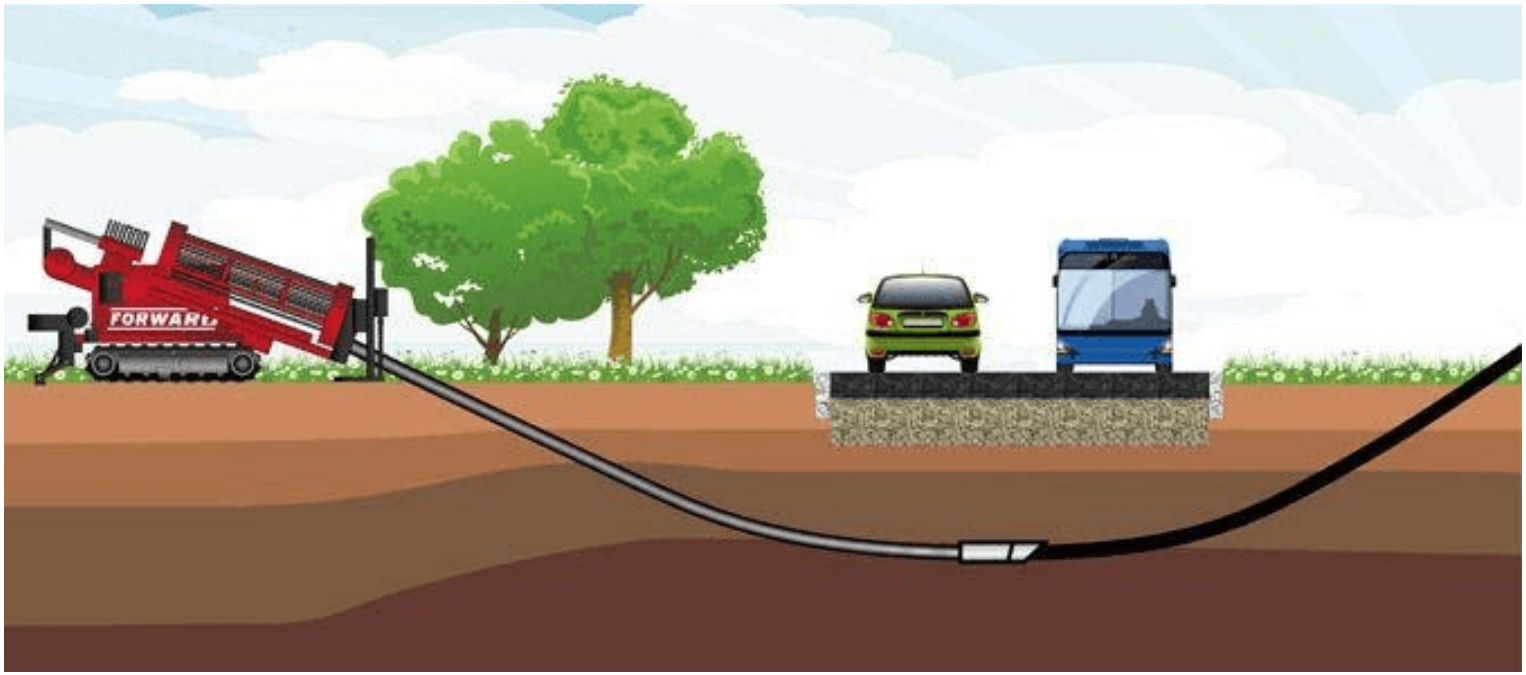
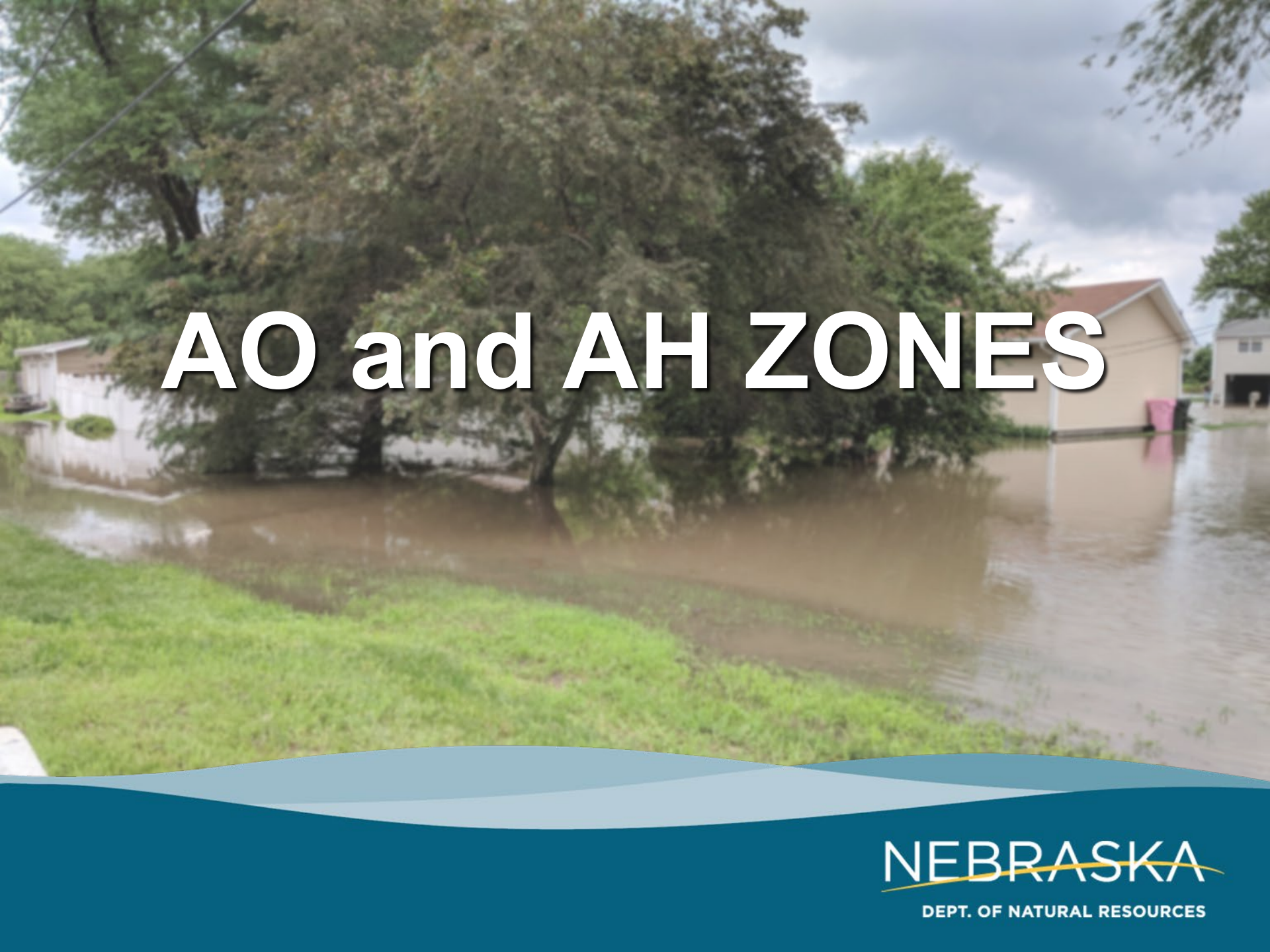


Image Source: trenchlesspedia.com



AO and AH ZONES

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AO and AH ZONES

- AO zones: Sheet flooding of 1-3 feet
  - BFE is highest adjacent grade plus depth of flooding
  - Occurs in areas with sloping terrain
- AH zones: Ponding of 1-3 feet
  - BFE is shown on FIRM
  - Occurs in low lying depressions

AO and AH ZONES

- AO zones: Sheet flooding of 1-3 feet
  - Adequate drainage?
  - Diversion of flooding around structure and away from others
- AH zones: Ponding of 1-3 feet
  - Adequate drainage?
  - Review impacts on water storage capacity

Recreational Vehicles

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RVs and RV Parks

- Can be a great way to maintain drainage areas
- Maintains natural function of floodplain
- Promote green space

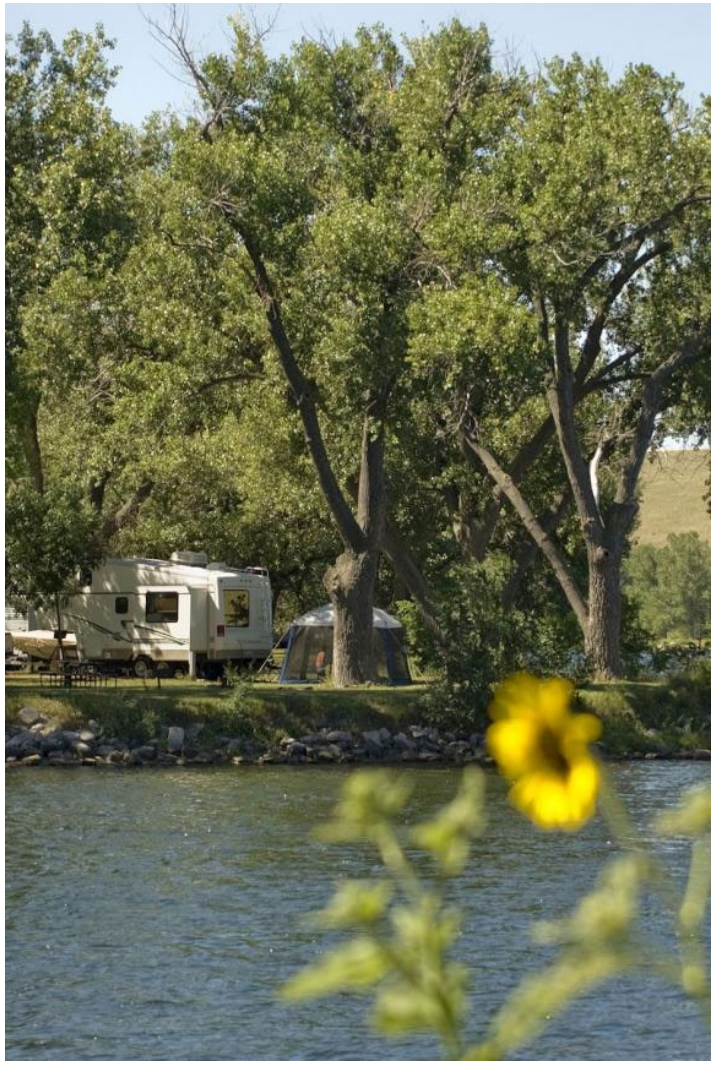

Image Source: visitnebraska.com/places-stay/campgrounds-rv-parks

RVs and RV Parks

- Shall:
  - Be on site for fewer than 180 consecutive days
  - Be fully licensed and ready for highway use

  OR

  - Meet the requirements for a manufactured home

RVs and RV Parks

- ALWAYS REMEMBER:
  - Need to evacuate in the event of a flood
  - Have a warning system in place
  - Have a designated person monitoring for unpermitted additions/attachments
  - Inspect for mobility

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MONITORING FOR DEVELOPMENT

- Community outreach/education
  - Mailers
  - Flyers in office or public building
  - Postcards in utility bills
  - Door hangars

MONITORING FOR DEVELOPMENT

- Have floodplain information on website, including a permit application
- Ensure other permitting officials know to check for floodplain
- Work with assessor office to develop list of existing properties in floodplain

MONITORING FOR DEVELOPMENT

MONITORING FOR DEVELOPMENT

ADVICE FROM AN FPA

"Always be looking for development. An easy way to do this is to contact your building inspector. Familiarize them with the floodplain areas within your jurisdiction, and ask them to keep an eye out for any development. Part of my job is the building inspector, so I am on the road a lot, driving to inspections. I have caught unpermitted dirt work in the floodplain numerous times, along with a few structures."

-Mitch Polacek, Saunders County

ADVICE FROM AN FPA

"Familiarize yourself with the floodplain. Check the floodplain map when every building permit is submitted, prior to the applicant leaving the office. This will prevent them from leaving without submitting a floodplain development application, if needed. When in doubt, contact the Nebraska Department of Natural Resources. They have an excellent staff that are timely, and a wealth of knowledge and experience."

-Mitch Polacek, Saunders County

HELPFUL RESOURCES

- Nebraska Model Permit Application: dnr.nebraska.gov/floodplain/digital-desk-reference
- Nebraska Floodplain Interactive Map: http://ne.gov//go/floodriskmap
- FEMA Map Service Center: https://msc.fema.gov/portal/home
- NeDNR Contact Page: https://dnr.nebraska.gov/floodplain/contact

Questions?

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Contacts

Chuck Chase

Outreach Coordinator

chuck.chase@nebraska.gov

(402) 471–9422

Michele York

Administrative Assistant

michele.york@nebraska.gov

(402) 471–1214

Elijah Kaufman

NFIP and Outreach Specialist

elijah.kaufman@nebraska.gov

(402) 471–0640

Asa Brayton

NFIP and Outreach Specialist

asa.brayton@nebraska.gov

(402) 471-0572


Thank You!
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