

The FEMA Floodplain

Floods can and do happen anywhere. Everyone lives in a floodplain – just of varying risk. The Federal Emergency Management Agency (FEMA) creates Flood Insurance Rate Maps (FIRMs) that show areas that are predicted to be impacted by flooding from a major storm with a 1% chance of occurring in any given year. This is sometimes called a “100-year storm” but can occur more often than once every 100 years. Areas that fall within this 1% chance probability are known as the FEMA floodplain. There are additional construction and mandatory flood insurance requirements when development occurs in the FEMA floodplain.

Floodplain Management

There are three main tenets of floodplain management.

1. Knowledge of the high hazard areas. THE FEMA flood insurance maps show areas of high flood hazard and in some cases the predicted depth of flooding. This knowledge allows people to try to avoid building in the FEMA floodplain. If a property will allow for avoidance of the FEMA floodplain, all structures should be constructed outside of the floodplain. While this may be achievable with larger tracts of land, smaller lots within municipal areas will find this to be a challenge.
2. Build structures to minimize damage from floodwaters. Residential structures can be constructed with increased elevation above predicted flood hazards for habitable spaces and with waterproof

materials and flood openings to allow equalization of water pressure for non-habitable spaces. Non-residential structures also have the option to construct in such a way as to keep all water out of a structure.

3. Insure structures and contents for the remaining risk. FEMA subsidized flood insurance is available for structures and their contents whether a structure is in the FEMA floodplain or not. For structures not in the FEMA floodplain, the insurance is substantially discounted. All structures within the FEMA floodplain that have a mortgage from a federally regulated lender are required by the lender to have flood insurance on the structure.

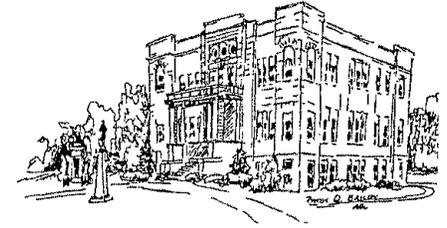
Viewing the Floodplain/FIRMs

FEMA provided Osceola County’s first FIRM in November of 2021. The maps are available to be viewed at the county engineer’s office at the Osceola Courthouse in Sibley.

There are ways to view the floodplain electronically.

1. The floodplain is an available GIS layer on the Beacon mapping system for Osceola County. This web-based application is available at:
2. FEMA has a web-based application that allows you to produce a custom map of your property.

<https://msc.fema.gov/portal/home>



Osceola County

Floodplain Information



County Engineer Office

712-754-2303

osceolacountyia.gov/departments/engineer

Construction Requirements in the Floodplain

All structures in Osceola County that fall within the FEMA floodplain must comply with certain construction requirements. It should be noted that while agricultural buildings are exempt from zoning compliance, they still must comply with floodplain requirements.

Substantial Damage/Substantial Improvement

Substantial damage is defined as damage of any origin sustained by a structure whereby the cost to restore the structure to its before damage condition would equal or exceed fifty percent of the market value of the structure.

Substantial improvement is defined as either a repair, reconstruction, or improvement that exceeds fifty percent of the value of the structure in its before condition, or any addition that increases the floor area by 25 percent or more from its before condition.

If either the substantial damage or substantial improvement threshold is met, the entire structure must be brought into compliance with floodplain construction requirements. The damage/improvements are cumulative over time in determining if the threshold is met.

Residential Buildings

The structure and its associated utilities must have its lowest floor (including basement) built one foot above the calculated flood hazard – to be

determined by the Iowa DNR. Constructed fill pads must extend at least 18 feet beyond the structure.

The structure must have a means of access passable by wheeled vehicles during the flood.

Non-basement areas used solely for storage (including garages) or building access may be constructed lower than the flood hazard elevation provided they have openings designed to automatically allow the entry and exit of floodwaters.

Structures must be designed and anchored to prevent flotation, collapse, or lateral movement.

Factory Built Homes/Mobile Homes

Factory built/mobile homes must meet the same requirements as other residential homes. The finished floor and utilities must be one foot above the flood hazard and the structure must be anchored to resist flotation, collapse, and lateral movement.

Non-Residential Buildings

Non-residential buildings must generally follow the same requirements for construction as residential structures. They may however also employ the following alternate building techniques.

A non-residential structure may construct using floodproofing designs and materials to an elevation one foot above the flood hazard.

Attendant utilities must still be constructed one foot above the flood hazard.

Accessory Buildings

Detached garages, sheds and similar incidental structures where there is no habitation may be built lower than the flood hazard elevation with the following requirements.

The structure must be less than 600 square feet. Portions of the structure lower than one foot over flood hazard must be constructed of flood resistant materials.

Utility components must be 1 foot above the flood hazard

Openings must be provided to automatically allow the entry and exit of floodwaters.

The structure must be anchored to resist flotation, collapse, and lateral movement and be placed on site to offer minimum resistance to the flow of floodwaters.

Wells and Septic Systems

On-site waste disposal and water supply systems shall be located or designed to avoid impairment to the system or contamination from the system during flooding.

Septic tanks can be constructed with watertight seals and covers when the floodplain cannot be avoided or the access points cannot be raised above the flood hazard.

Potable well electrical and pump head components can be constructed above the flood hazard when the flood plan cannot be avoided.