



Frequently Asked Questions #2



Floodplain Alteration Standards

What are floodplains and why are they important?

A floodplain is the area of land adjacent to a stream channel that is inundated with flood waters during high water periods. Floodplains store water from snowmelt and rainstorm runoff as it moves downstream or as it subsides through infiltration or evapotranspiration. Floodplains are only flooded when a stream overflows its banks; in some areas they may be inundated on a recurring basis.

Floodplains slow the velocity and reduce the power of floods, protecting downstream areas from flooding or erosive stream velocities. Flooding is a natural process that helps replenish the area's ecosystem if floodplains are allowed to be connected to the stream during floods.

The term "100-year flood" refers to a flood that has a 1-percent chance of occurring in any given year; it is not a flood that will occur every 100 years. The 100-year flood is determined by conducting a hydrologic (flow volumes) and hydraulic (stream characteristics) engineering study.

The "100-year flood" (or 1-percent annual chance of a flood event) is the Federal standard for flood protection administration.

Who is involved in floodplain management?

The National Flood Insurance Program (NFIP) was created by Congress in 1968 through the National Flood Insurance Act. Dakota County began participation in the NFIP through the adoption of a Flood Insurance Study (FIS) and Flood Insurance Rate Maps (FIRMs) in 1973 through the adoption of a Floodplain Management Ordinance. Participation in the NFIP is a city-by-city decision. All major cities within Dakota County participate in the NFIP. Individual cities adopt a floodplain management ordinance based on standards within the NFIP as well those established by the Minnesota Department of Natural Resources. Dakota County administers its floodplain management program in all 13 unincorporated townships.

Local floodplain management is accomplished through a three-pronged approach. The FIS and FIRMs are created by the Federal Emergency Management Agency (FEMA); the local unit of government adopts the FIS and FIRMs through a local floodplain ordinance which includes prescriptive land use controls to protect the health, safety and welfare of its residents; and, the NFIP provides federally-backed flood insurance rates for properties that have been built in or near the FEMA designated floodplain.

Community specific floodplain maps can be viewed through [FEMA's on-line Map Service Center](#). For specific floodplain map and administrative requirements, please contact your individual city. Specific floodplain questions regarding the floodplain maps or ordinance requirements within unincorporated townships should be directed to the [Water Resources Department](#) at 952-891-7000. Contact your local city for those living in incorporated municipalities.

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Where can I find the current Standards?
The standards are in Appendix B of the plan on the Vermillion River Watershed website: www.vermillionriverwatershed.org, under "Plans/Reports."

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Vermillion River Watershed Joint Powers Organization

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The Vermillion River Watershed encompasses an area of approximately 335 square miles, including portions of two counties and all or portions of 20 cities, towns, and townships. The main stem of the river begins in southeastern Scott County in New Market Township flowing east through central Dakota County, passing over a waterfall in the City of Hastings, and then discharging to the Mississippi River both through a northerly flowing outlet near the City of Hastings as well as through a southerly flowing outlet near the City of Red Wing, Minnesota.

What is floodplain alteration?

Floodplain alteration is any change within the floodplain that affects its ability to accommodate large volumes of water by changing the routing or storage of flood waters. Modified floodplains minimize or completely eliminate the natural functions of the floodplain. Examples include a new building, roadway, fill, or other changes in land use.

When do floodplain alteration requirements come into effect?

Any activity that occurs within the floodplain needs to be reviewed and issued a permit to assure that there is no alteration that would impact the floodplain function. If there would be an impact, a plan for proper mitigation of the impact must be filed as part of the permit application before a permit can be issued.

Contact your city for specific floodplain alteration permit requirements. Within the 13 unincorporated townships, contact the Dakota County Water Resources Department.

What are the criteria?

- No net decrease in flood storage capacity below the 100-year flood elevation (1% chance flood event).
- Where Base Flood Elevations have been established, all new structures shall be constructed with the low floor consistent with the minimum elevations as specified in State of Minn. R. Ch. 6120 and consistent with Dakota County and Scott County floodplain ordinances.
- Projects involving development, redevelopment, or subdivision of land shall establish flood storage, flowage, and drainage easements over areas below the Base Flood Elevation of any public water, public waters wetland, or wetland.
- Setbacks for floodplain alterations, fill, or underground utilities shall be established and used along watercourses.
 - Where a watercourse has a sinuous flow pattern and a meander belt can be identified, the setback shall be 15 feet from the outer edge of the meander belt.
 - Where a sinuous flow pattern and meander belt are not readily identifiable, the setback shall provide for the potential for restoration and a sinuous flow pattern.
 - Where there are existing encroachments that limit full restoration, the setback shall be 15 feet from the reasonably achievable restoration width for the meander belt.
 - Where full restoration is possible, the setback shall be 15 feet from a meander belt width established along the stream reach that has a width 10 times the bankfull channel width.
 - Where buffers are required, above ground encroachments, alterations, and fill shall be consistent with the prohibited and allowed uses and widths specified in the Buffer Standard.
- Projects that alter floodplain boundaries and increase upstream water levels, are allowed provided:
 - The applicant obtains easements or other documentation that demonstrates and records the consent of owners of any lands affected by the increased water levels.
 - The action is consistent with other portions of these Standards and Local, State, and Federal Regulations
 - The upstream, riparian, and habitat impacts are analyzed, and no detrimental impacts result or are mitigated.