

**567—72.2(455B) Channel changes.** The following criteria shall apply to channel changes.

**72.2(1) Percent reduction in length.**

*a. Streams draining over 100 square miles.* For streams (other than protected streams) draining more than 100 square miles, no more than a 10 percent reduction in the original length of the existing channel through any contiguous parcel(s) of the applicant's(s') property will be allowed.

*b. Rural streams draining 10 to 100 square miles.* For streams (other than protected streams) draining between 10 and 100 square miles in rural areas, no more than a 25 percent reduction in the original length of the existing channel through any contiguous parcel(s) of the applicant's(s') property will be allowed.

*c. Urban streams draining 2 to 100 square miles.* For streams (other than protected streams) draining between 2 and 100 square miles in urban areas, no more than a 25 percent reduction in the original length of the existing channel through any contiguous parcel(s) of the applicant's(s') property will be allowed.

*d. Protected streams.* For protected streams no channel changes will be allowed, because of actual or potential significant adverse effects on fisheries, water quality, flood control, floodplain management, wildlife habitat, soil erosion, public recreation, the public health, welfare and safety, compatibility with the state water plan, rights of other landowners, and other factors relevant to the control, development, protection, allocation, and utilization of the stream. Protected stream status does not prohibit bank stabilization measures; tree maintenance or removal; maintenance or installation of tile outlets; machinery crossings, including concrete drive-throughs and bridges; boat or canoe ramps; or other structures permitted by the department; nor restrict riparian access to the protected stream for such uses as livestock watering or grazing. Protected stream status does not affect current cropping practices or require the establishment or maintenance of buffer strips, filter strips or fences along protected streams.

**72.2(2) Capacity.** In the project reach, excavated channels shall have a discharge capacity equal to or greater than the existing channel. Excessive channel excavation will not be permitted.

**72.2(3) Alignments.** The alignments and dimensions of the excavated channel shall be such as to provide a smooth transition between the existing and the excavated channel.

**72.2(4) Velocities.** Velocities in the excavated channel shall not cause excessive erosion of the channel or banks, with the acceptable velocities being determined by the department. Energy dissipation structures, channel and bank protection, or other engineering measures may be required to eliminate excessive erosion of the channel or banks.

**72.2(5) Spoil disposition.** Disposition of spoil material from channel excavation of the floodplain shall be reviewed under miscellaneous floodplain construction.

**72.2(6) Increase in flood peak.** No significant increase in peak flood discharge will be permitted by the department. Floodwater retardance structures may be required to minimize any increase in peak flood discharges.

**72.2(7) Fish and wildlife habitat and public rights.** The channel change shall not have a significant adverse effect on fish and wildlife habitat or public rights to use of the stream. Conservation easements and other conditions may be required to mitigate potential damages to the quality of water, fish and wildlife habitat, recreational facilities, and other public rights.

**72.2(8) Soil erosion.** The tillage of land along the reach of a straightened stream shall be prohibited or modified when necessary to hold soil erosion to reasonable limits. Zones of land in which tillage shall be prohibited along the straightened reach shall be set on a case-by-case basis with consideration given to topography, soil characteristics, current use, and other factors affecting propensity for soil erosion. The tillage prohibition shall be recorded by the department in the office of the appropriate county recorder and shall run with the land against the applicant and all successors in interest to the land subject to the prohibition.

**72.2(9) Encroachment on a confinement feeding operation structure.** A major water source, as identified in Appendix B, Tables 1 and 2 of 567—Chapter 65, or a water source other than a major water source shall not be constructed, expanded or diverted if the water source or major water source as constructed, expanded or diverted is closer than the following distances from a confinement feeding operation. Measurement shall be from the closest point of the confinement feeding operation structure to the top of the bank of a stream channel or the ordinary high water mark of a lake, pond, impoundment or reservoir. Farm ponds, privately owned lakes, and confinement feeding operations constructed with a

secondary containment barrier pursuant to 567—subrule 65.15(17) are exempt from the separation distance requirements. The provisions of this subrule shall not be construed to allow construction of a confinement feeding operation structure on land that would be inundated by Q100 and is adjacent to a major water source.

*a.* Minimum separation between a water source other than a major water source and a confinement feeding operation structure is 500 feet.

*b.* Minimum separation between a major water source and a confinement feeding operation structure is 1,000 feet.