

567—72.1(455B) Bridges and road embankments. The following criteria shall apply to the construction, operation, and maintenance of bridges and road embankments.

72.1(1) Bridges and road embankments affecting low damage potential areas. For bridges and road embankments affecting floodway or flood plain areas having a low flood damage potential, the following criteria will apply:

a. Backwater Q50. The maximum allowable backwater for Q50 and lesser floods is limited to 0.75 foot.

b. Backwater Q100. The maximum allowable backwater for Q100 is limited to 1.5 feet.

c. Freeboard. The minimum freeboard for low superstructure horizontal bridge members above Q50 is 3 feet.

72.1(2) Bridges and road embankments affecting moderate damage potential areas. For bridges and road embankments affecting floodway or flood plain areas occupied by buildings or building complexes having a moderate flood damage potential, the following criteria will apply:

a. The maximum allowable backwater for Q100 is limited to 1.0 foot.

b. The criteria specified in 72.1(1)“a” and “c.”

72.1(3) Bridges and road embankments affecting high or maximum damage potential development. For bridges and road embankments affecting floodway or flood plain areas occupied by buildings or building complexes having a high or maximum flood damage potential, the following criteria will apply:

a. Backwater effects are to be minimized for all stages which affect maximum or high flood damage potential buildings or building complexes or for all stages which would tend to reduce the level of protection of certain flood control works, unless acceptable remedial measures are provided or such buildings are removed or the uses relating to human occupancy are prohibited.

b. In no case shall the criteria specified in 72.1(1)“a” and “c” and 72.1(2)“a” be exceeded.

72.1(4) Bridge and channel change. For bridges and culverts involving channel changes on the floodway of any stream draining at the location of the channel change between 10 and 100 square miles whereby either (i) more than a 500-foot length of the existing channel is being altered or (ii) the length of existing channel being altered is reduced by more than 25 percent, the maximum allowable backwater shall correspond to the limits permitted in 72.1(1), 72.1(2), 72.1(3) or 72.1(5) depending upon the associated damage potential.

72.1(5) Culverts. The maximum allowable backwater at culvert inlets shall correspond to the limits permitted in 72.1(1), 72.1(2), or 72.1(3) depending upon the damage potential associated with the affected area. In the case of replacement culverts the backwater shall not exceed that created by the culvert or waterway crossing being replaced or that specified in 72.1(1), 72.1(2), or 72.1(3) depending upon the associated damage potential, whichever is greater.

72.1(6) Road embankments. The criteria listed in 72.1(455B) for miscellaneous flood plain construction projects shall apply to road embankments located on the flood plain but not crossing any stream or river channel.

72.1(7) Temporary channel obstructions. Temporary stream crossings and other temporary obstructions usually constructed, operated, and maintained during the construction phase of another flood plain construction project shall meet the following criteria:

a. Low flow. Said structures will provide for the passage of the prevailing flow in the stream or river.

b. Flood flow. Said structure shall be designed to fail or otherwise operate in the event of flooding so as to prevent premature overbank flow, or meet the backwater criteria indicated in 72.1(1), 72.1(2), or 72.1(3).

72.1(8) Emergency. Repairs or temporary construction required to maintain the operation of a bridge, roadgrade or culverts in time of emergency need not be submitted for prior department approval. Plans of such emergency or temporary construction shall be submitted to the department for review after the event causing the emergency has passed.