

SUBPART C - DAMS

MT528.22(b)(3)

MT528.22(b) Design criteria (potential loss of life determination from a dam breach).

(1) The Bureau of Reclamation developed guidelines relating depth and velocity of flood flows as it poses a threat to various human-related issues in a floodplain. Specifically, these include flood danger levels for adult pedestrians, passenger vehicles, mobile homes, and houses on a foundation. This is presented in a publication entitled "Downstream Hazard Classification Guidelines". The charts from this document have been copied as Figures 1-4 of this amendment. They are intended to assist the designer in analyzing the potential loss of life in the event of a dam breach or flood flows. Another necessary component of this kind of analysis, which should not be overlooked, is the amount of warning time afforded in the event of a breach.

(2) The State of Montana Department of Natural Resources and Conservation, has established Dam Safety Rules in conjunction with the Montana Dam Safety Act. Both of these documents can be downloaded from the following web site:
http://dnrc.mt.gov/wrd/water_op/dam_safety/default.asp. Then go to "Dams and Canals".

(3) Reference is made within the Montana Department of Natural Resources and Conservation, Chapter 14, Dam Safety, Sub-Chapter 5, Design and Construction Criteria, Rule 36.14.502, Hydrologic Standard for Emergency and Principal Spillways. The criteria listed in this section establishes the minimum emergency spillway capacity (also known as auxiliary spillway) based on an estimated potential loss of life from the dam caused by spillway failure. The criteria found in TR-60, Earth Dams and Reservoirs relating to design freeboard hydrographs for high hazard dams (hazard class "c") meets or exceeds the Montana DNRC criteria in all cases. Therefore TR-60 shall govern the design procedure.

MT528-2(7)

PART 528 - APPLICATIONS

MT528.22(b)(1)

MT528.22(b)(1) Design Criteria. Figures 1-2.

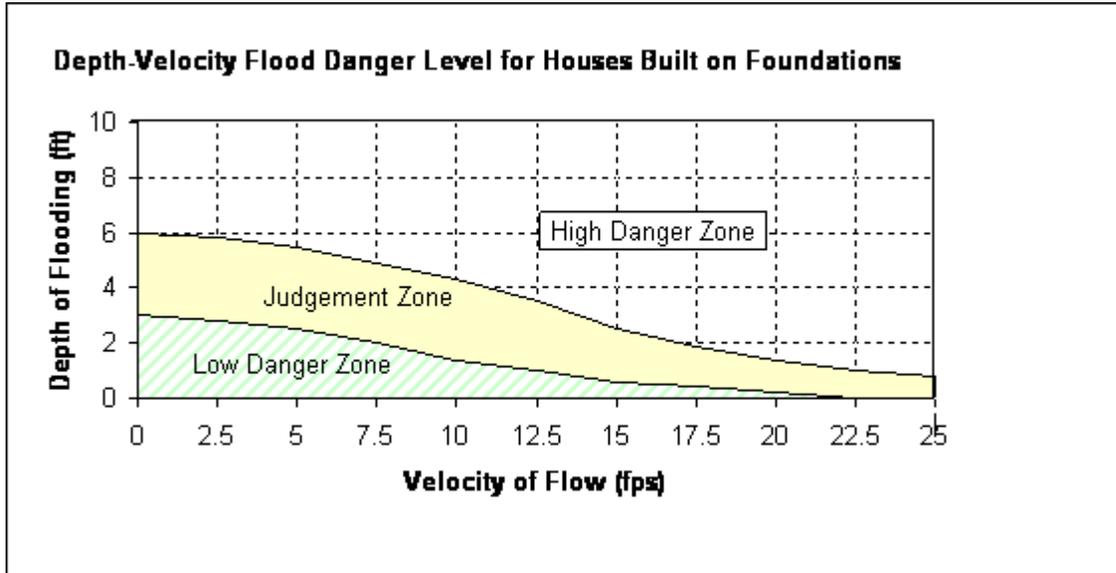


Figure 1.

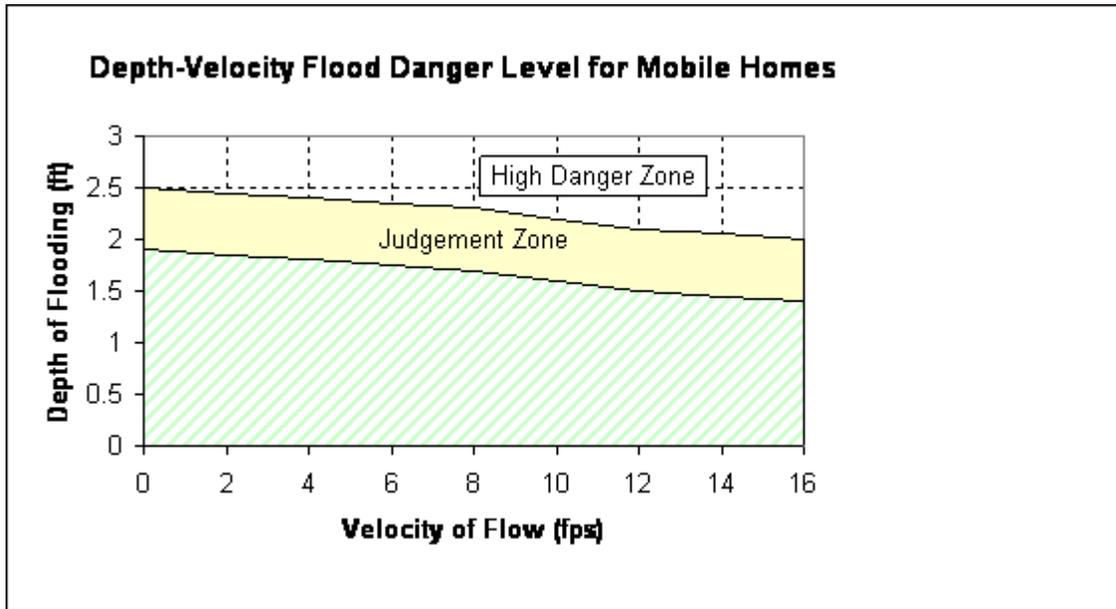


Figure 2.

Source for all Charts: USBR, "Downstream Hazard Classification Guidelines", 1988

MT528-2(8)

MT528.22(b)(1) Design Criteria. Figures 3-4.

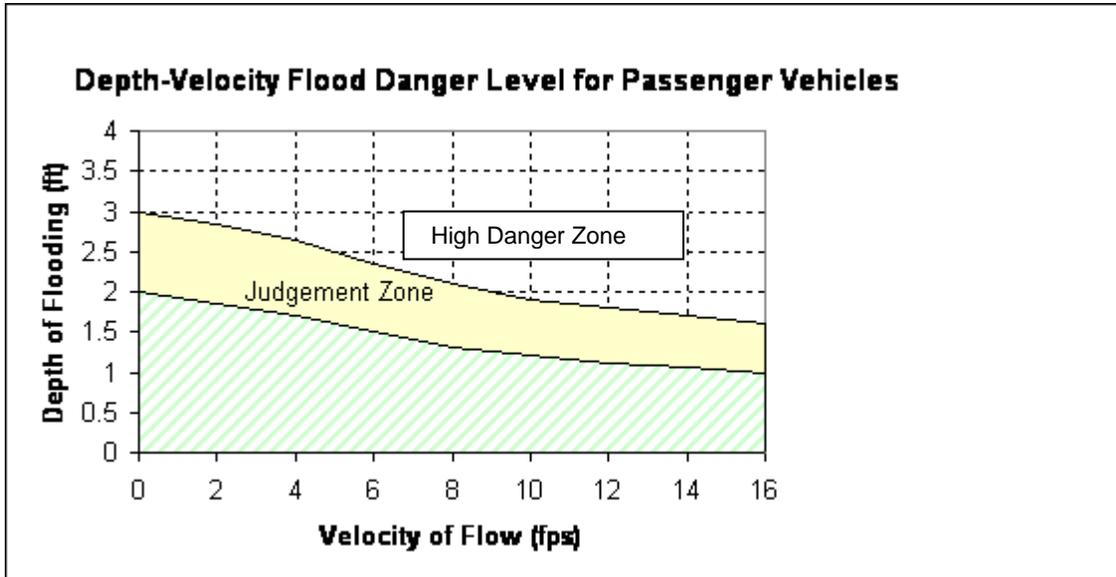


Figure 3.

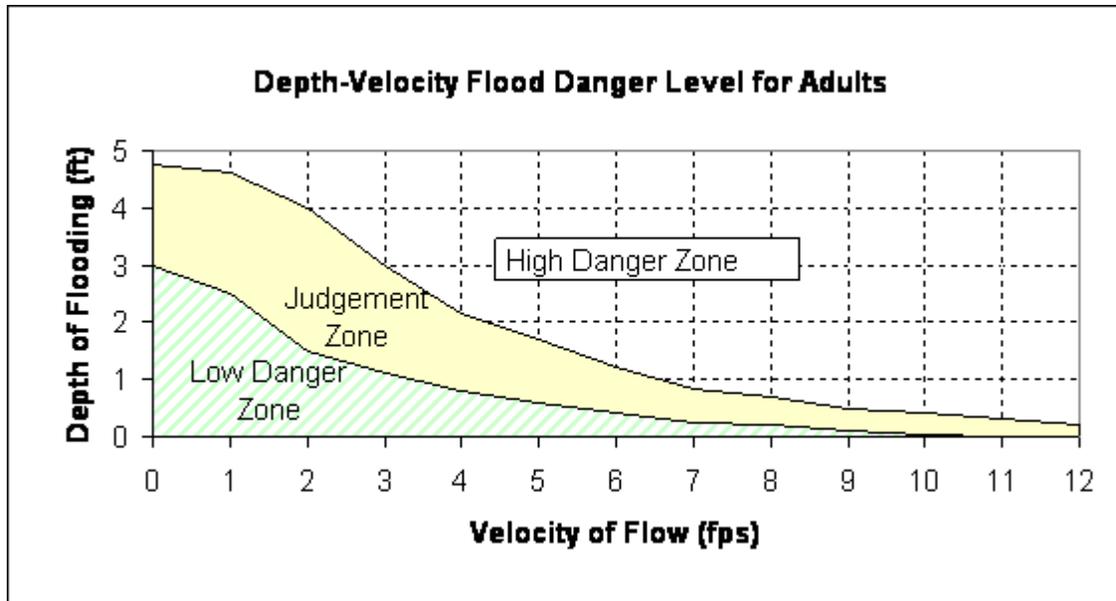


Figure 4.

Source for all Charts: USBR, "Downstream Hazard Classification Guidelines", 1988