

## DIVISION II. FLOODPLAIN OVERLAY DISTRICT

### Sec. 5.110. Findings of fact.

- A. Flood losses resulting from periodic inundation. The special flood hazard areas of the City are subject to inundation that results in loss of life and property, health, and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base; all of which adversely affect the public health, safety and general welfare.
- B. General causes of these flood losses. These flood losses are caused by:
1. The cumulative effect of obstruction in floodways causing increases in flood heights and velocities; and
  2. The occupancy of flood hazard areas by uses vulnerable to floods or hazardous to others that are inadequately elevated or otherwise unprotected from flood damages.
- C. Methods used to analyze flood hazards. The Flood Insurance Study (FIS) that is the basis of this division of the UDO uses a standard engineering method of analyzing flood hazards which consist of a series of interrelated steps.
1. Selection of a base flood that is based upon engineering calculations which permit a consideration of such flood factors as its expected frequency of occurrence, the area inundated, and the depth of inundation. The base flood selected for this division of the UDO is representative of large floods which are characteristic of what can be expected to occur on the particular streams subject to this division of the UDO. The base flood is the flood that is estimated to have a one percent chance of being equaled or exceeded in any given year, as delineated on the Federal Insurance Administrator's Flood Insurance Study (FIS), and illustrative materials for Jackson County, Missouri dated December 7, 2023 as amended, and any future revisions thereto.
  2. Calculation of water surface profiles based upon a standard hydraulic engineering analysis of the capacity of the stream channel and overbank areas to convey the regulatory flood.
  3. Computation of the floodway required to convey this flood without increasing flood heights more than one foot at any point.
  4. Delineation of floodway encroachment lines within which no development is permitted that would cause any increases in flood height.
  5. Delineation of the floodway fringe, i.e., that area outside the floodway encroachment lines, but still subject to inundation by the base flood.