

Chapter 28

NATURAL HAZARD STANDARDS

Chapter Contents

- 28.0 Purpose
- 28.1 Applicability
- 28.2 Avalanche and Mass Instability (Reserved)
- 28.3 Flood Plains
- 28.4 Wildfire (Reserved)

28.0 Purpose: This chapter sets forth regulations pertaining to recognition of natural hazards, prevention of damage to property, and protection of public health relating to such natural hazards. It implements provisions of the Goals and Policies and the Water Quality Management Plan for the Lake Tahoe Region pertaining to avalanche and mass instability, flood plains, and wildfire.

28.1 Applicability: This chapter is applicable to: construction, reconstruction, or replacement of structures in identified avalanche or mass instability hazard areas; additional development in 100-year flood plains; maintenance of public utilities, transportation facilities, and other necessary public uses in 100-year flood plains; and, with respect to fire prevention techniques and measures, all lands within the Tahoe Region. The regulations regarding development within the 100-year flood plain shall not apply to the shorezone of Lake Tahoe, except where TRPA determines it is within the 100-year flood plain of a tributary stream. Development within the shorezone is regulated by the shorezone provisions of this Code.

28.2 Avalanche and Mass Instability [Reserved]

28.3 Flood Plains: To help prevent property damage and protect public health, TRPA shall review additional development in 100-year flood plains and regulate public utilities, transportation facilities, and other necessary public uses located in flood plains, according to the following standards and procedures:

28.3.A The 100-year Floodplain Shall be Determined: TRPA shall employ the limits of the 100-year Flood Insurance Program maps of the Federal Emergency Management Agency (FEMA) if such maps exist. If no FEMA maps exist, then the 100-year floodplain shall be defined by the limits of the intermediate Regional Flood or the 100-year floodplain maps as established by the Army Corp of Engineers (ACE) if such maps exist. If (1) no FEMA or ACE maps exist and TRPA reasonably believes that an unmapped floodplain exists or (2) if existing floodplain maps are reasonably believed to be inaccurate, the limits of the 100-year floodplain will be determined by a licensed professional engineer (PE) applying the standard hydrologic data and methods as outlined in "Flood Insurance Study, Guidelines and Specifications for Study

Contractors” (FEMA 37). The delineation study shall be submitted concurrently to TRPA and FEMA for its evaluation and acceptance. TRPA shall not accept any new delineation study until FEMA provides TRPA with a notification of acceptance of that study. If FEMA does not respond to the delineation study in a timely manner, TRPA may retain a licensed professional engineer (PE) to review and approve the content and methods of the study prior to adoption.

- 28.3.B Floodplain Definition: That portion of the river valley, adjacent to the channel, which is built of sediments deposited during the present geological / climatic regime. Based on statistically derived hydrologic recurrence intervals, a portion of the land adjacent to the watercourse experiences bank full overflow during flood stage episodes.
- 28.3.C 100 year Flood-Recurrence Interval: The average time, expressed in years, between floods of particular volumes equal or greater than a specified magnitude derived and referenced to a specific location. A flood having a recurrence interval of 100 years has 1 chance in 100 or a 1% probability of happening in any given year.[§]
- 28.3.D Prohibition of Additional Development, Grading, and Filling of Lands Within the 100-Year Flood Plain: Additional development, grading, and filling of lands within the 100-year flood plain is prohibited, except as follows:
- (1) Public Outdoor Recreation Facilities: TRPA may permit additional public outdoor recreation facilities within the 100-year flood plain if TRPA finds that:
 - (a) The project is a necessary part of a public agency's long range plans for public outdoor recreation;
 - (b) The project is consistent with the Recreation Element of the Regional Plan;
 - (c) The project, by its very nature, must be sited in a flood plain and is in accordance with the Guidelines Regarding Public Outdoor Recreation Facilities and Activities Which Create Additional Land Coverage or Permanent Disturbance and Which By Their Very Nature Need Not Be Sited in Sensitive Lands (1a, 1b, 1c, 2, 3 or SEZs), Water Quality Management Plan for the Lake Tahoe Region, Volume I, Table 16, dated November, 1988;
 - (d) There is no feasible alternative which would reduce the extent of encroachment in a flood plain; and
 - (e) The impacts on the flood plain are minimized.

[§] Amended 06/27/01

- (2) Public Service Facilities: TRPA may permit additional public service facilities within the 100-year flood plain if TRPA finds that:
 - (a) The project is necessary for public health, safety, or environmental protection;
 - (b) There is no reasonable alternative, including spans, which avoids or reduces the extent of encroachment in a flood plain; and
 - (c) The impacts on the flood plain are minimized.
- (3) Flood Plain Crossings: TRPA may permit projects to effect access across a 100-year flood plain to otherwise buildable sites if such projects comply with applicable development standards in Chapter 27 and if TRPA finds that:
 - (a) There is no reasonable alternative which avoids or reduces the extent of encroachment in the flood plain; and
 - (b) The impacts on the flood plain are minimized.
- (4) Water Quality Control Facilities: TRPA may permit erosion control projects, habitat restoration project, wetland rehabilitation projects, stream environment zone restoration projects, and similar projects, programs, and facilities within a 100 - year flood plain if TRPA finds that:
 - (a) The project, program, or facility is necessary for environmental protection;
 - (b) There is no reasonable alternative which reduces the extent of encroachment in the flood plain; and
 - (c) Impacts are fully mitigated and, if applicable, transferred land coverage requirements pursuant to 20.3.C(2)(e) are met.

28.3.E Construction and Maintenance of Public Utilities, Transportation Facilities, and Other Necessary Public Uses Located in the 100-Year Flood Plain: [Reserved]

28.4 Wildfire: [Reserved]

