



REGULATION

GENERIC REGULATION

Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation

Regulation Limit

The **Regulation Limit** provided on the UTRCA regulation schedules for stream valley systems and wetlands is determined by whichever of the following has the greatest extent:

- Flood Hazard Limit + 15 Metre Allowance
- Erosion Hazard Limit + 15 Metre Allowance
- Wetland Boundary
- Area of Interference (30 m or 120 m) adjacent to all wetlands

What is a Stream Valley System?

Stream valley systems are described in the Generic Regulation as: "depressional features associated with a river or stream, whether or not they contain a watercourse." A stream valley system can be "apparent" or "not apparent."

Apparent Stream Valley System

Where there is an apparent stream valley, the regulated area is based on the **Flood Hazard Limit** or the **Erosion Hazard Limit** (whichever is greater) + **15 Metre Allowance**.

■ Flood Hazard Limit (Flood Plain)

The **Flood Hazard Limit** is based on observations of 1937 Upper Thames River watershed flooding, which has been designated as the Regulatory Flood. The probability of the Regulatory Flood is estimated to be once in 250 years. The mathematical models used to calculate flood levels for the Regulatory Flood consider historical stream flow, precipitation, climate, watershed conditions, watercourse and flood plain characteristics, and flood control systems throughout the watershed.

■ Erosion Hazard Limit

a) **Valley slopes stable: Erosion Hazard Limit = Top of Valley Slope**

b) **Valley slopes unstable: Erosion Hazard Limit = Toe of Slope Allowance + Stable Slope Allowance**

Streambank erosion is an important cause of valley slope instability and is ultimately responsible for the presence of a valley. Streambank erosion directly at the toe of a valley slope can steepen and undercut the slope, leading to the eventual failure of the bank. The Toe of Slope Allowance buffers development from the hazardous effects of toe erosion on slope stability, and buffers the natural river processes from the influences of development.

The **Stable Slope Allowance** buffers development from the hazards of slope instability, and prevents development from affecting the rate of slope movement. This allowance is based on an assumed stable slope gradient of three horizontal units to one vertical unit (3:1).

Not Apparent Stream Valley System

Where there is not an apparent stream valley, the regulated area is based on the **Flood Hazard Limit** or the **Erosion Hazard Limit** (whichever is greater) + **15 Metre Allowance**.

■ Flood Hazard Limit

The **Flood Hazard Limit** is based on the Regulatory Flood, as determined by either completed engineering studies or modelled flood flows.

■ Erosion Hazard Limit = Meander Belt Allowance

15 Metre Allowance

The Generic Regulation describes the use of an allowance that may be applied to all Hazard Limits. The purpose of the allowance is to maintain sufficient access for emergencies, maintenance and construction activities. This allowance is analogous to a factor of safety, providing protection against unforeseen conditions that may adversely affect the land next to a natural hazard area.



REGULATED RIVER OR STREAM VALLEY

