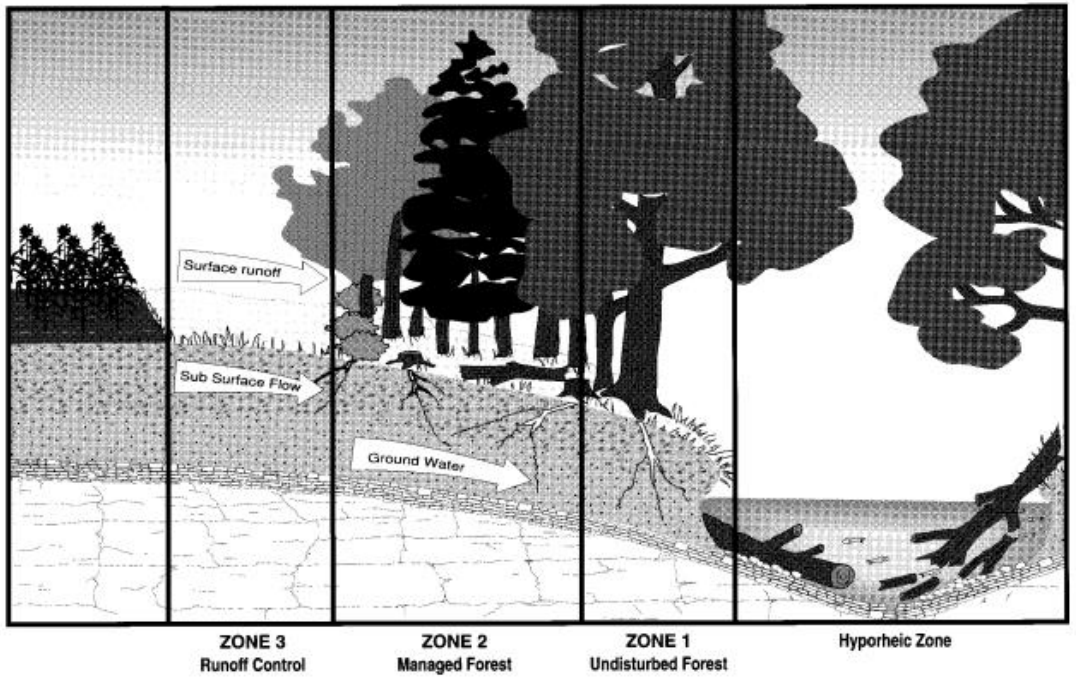
Background on upland credit from 2014 Riparian Forest Buffer expert panel

- Variation in efficiency of buffer is contingent on multiple factors:
  - Upslope land use (higher effectiveness when treating areas with high nutrient loading)
  - Subsurface flows (Higher N removal when there are subsurface flow paths supporting denitrification)
  - Other buffer/landscape characteristics
- “Upslope contributing areas receive a load reduction efficiency credit because they are treated by the buffer”
- “The CBWM does not directly account for adjacent land use to a buffer, but does apply the efficiency proportionally to all agricultural land uses in a land-river segment.”
- Efficiencies vary depending on hydrogeomorphic region



Example of heterogeneous upland ag landscapes

Considerations for revising upslope efficiencies

- Agricultural land uses are a patchwork on the landscape and can change from year to year
- Buffers aren't only treating the directly adjacent land use (geology and hydrology will influence runoff entering buffer and treatment capacity)
- Are there opportunities to address the excess issue by making the upslope efficiency allocations less restrictive rather than more restrictive?
  - Consider reversing restriction on exclusion buffers so buffer efficiencies can be applied to all upslope ag land uses