Ohio Administrative Code

Rule 1501:15-1-05 Stream channel and flood plain erosion.

Effective: November 30, 1989

(A) In order to control pollution of public waters by soil sediment from accelerated stream channel erosion and flood plain erosion caused by accelerated stormwater runoff from development areas, the peak rates of runoff from an area after development may be no greater than the peak rates of runoff from the same area before development for all twenty-four-hour storms from one- to one-hundred-year frequency. Design and development to match the peak rate of runoff for the one-, two-, five-, ten-, twenty-five-, fifty-, and one-hundred-year storms may be considered adequate to meet this rule.

(1) If the volume of runoff from an area after development will be greater than the volume of runoff from the same area before development, it shall be compensated by reducing the peak rate of runoff from the critical storm and all more-frequent storms occurring on the development area to the peak rate of runoff from a one-year frequency, twenty-four-hour storm occurring on the same area under predevelopment conditions. Storms of less-frequent occurrence (longer return periods) than the critical storm up to the one-hundred-year storm shall have peak runoff rates no greater than the peak runoff rates from equivalent size storms under predevelopment conditions.

(2) The critical storm for a specific development area is determined as follows:

(a) Determine the total volume of runoff from a one-year frequency, twenty-four-hour storm, occurring on the development area before and after development.

(b) From the volumes in paragraph (B)(2)(a) of this rule, determine the per cent of increase in volume of runoff due to development and, using this percentage, select the critical storm from this table:

If the percentage increase in volume of runoff is		Equal to or Greater than
and Less than	The 24-hour "critical storm" for discharge limitation will be:	0
10	1 year	10

20	2 year	20
50	5 year	50
100	10 year	100
250	25 year	250
500	50 year	500

(C) Methods for controlling increases in stormwater runoff peaks and volumes may include but are not limited to:

(1) Retarding flow velocities by increasing friction; for example, grassed road ditches rather than paved street gutters where practical, discharging roof water to vegetated areas, or grass and rock-lined drainage channels.

(2) Grading and use of grade control structure to provide a level of control in flow paths and stream gradients.

(3) Induced infiltration of increased stormwater runoff into the soil where practical; for example, constructing special infiltration areas where soils are suitable, retaining topsoil for all areas to be vegetated, or providing good infiltration areas with proper emergency overflow facilities.

(4) Provisions for detention and retention; for example, permanent ponds and lakes with stormwater basins provided with proper drainage, multiple-use areas for stormwater detention and recreation, wildlife, or transportation, or subsurface storage areas.