Work Sheet to Determine Peak Flow Rate from an Agricultural Watershed

SI Units

This worksheet is a supplement to Publication 832: Agricultural Erosion Control Structures: A Design and Construction Manual.

Section 1: Watershed characteristics

No.	Description	Input Value
1	Watershed area	_____ ha
2	Watershed length	_____ m
3	Elevation difference over length of watershed	_____ m
4	Average grade of watershed	Elevation difference Line (3) _____ m ÷ Watershed length Line (2) _____ m x 100 = _____ %
5	Hydrologic soil group from Table 2.2 OR Publication 29, Drainage Guide for Ontario	_____
6	Hydrologic condition from Table 2.3	_____
7	Runoff curve number from Table 2.4	_____

8. Choose the appropriate peak flow chart based on runoff curve number, i.e. Table 2.5-M to 2.11-M. Read acreage across the top of the figure and average grade along the left side. Enter the peak flow rates for the appropriate return periods into the chart below.

Section 2: Storm Return Period Flow Rate

2 years, flow rate: _____ m^3/s

5 years, flow rate: _____ m^3/s

10 years, flow rate: _____ m^3/s

25 years, flow rate: _____ m^3/s

Use the appropriate peak flows to design various structures as outlined in Section 4 in Publication 832.

Tables and figures referenced in this document are found in *Publication 832: Agricultural Erosion Control Structures: A Design and Construction Manual*

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