

*22 Attachment 1*

Borough of Mohnton

**Appendix 1**

**Determination of Floodplains**

For all subdivision and land development, all existing and proposed one-hundred-year floodplain areas shall be shown on the subdivision or land development plans. Floodplain areas shall be determined using the methods set forth below, except that where one-hundred-year floodplains have been calculated and mapped by FEMA, such FEMA mapping shall be used.

A. Hydrologic Criteria for Estimating Runoff.

The following methods may be used in computing runoff for the one-hundred-year storm. A conservative average of at least two methods shall be used, and the design flow is subject to approval by the Borough.

1. The method in Technical Release No. 55, "Urban Hydrology for Small Watersheds," latest edition, by the United States Department of Agriculture Soil Conservation Service. The graphical method may be used for streams whose drainage area at the point in question is no larger than 2,000 acres, and the tabular method may be used for drain age areas up to 20 square miles.
2. The Rational Method can be used for streams whose drainage area at the point of interest is no larger than 320 acres.
3. The method in Water Resources Bulletin Number 13, Floods in Pennsylvania, issued by the Pennsylvania Department of Environmental Resources, can be used for streams whose drainage age area at the point of interest is larger than two square miles.
4. The "Procedure PSU IV for Estimating Design Flood Peaks on Ungaged Pennsylvania Watersheds."
5. The Penn State Runoff Model.

B. Hydraulics of Flow.

1. The horizontal and vertical limits of the floodplain shall be determined utilizing the Standard Step Method (i.e. HEC-2 or similar approved computer model). If the HEC-2 model is used, the applicant shall submit a computer disc containing all input files for the calcula-

## SUBDIVISION AND LAND DEVELOPMENT

tions, in order to expedite the floodplain review. For drainage areas less than 100 acres, the Mannings Equation may be used.

All methods used and calculations performed in estimating runoff and computing flood elevations are subject to the review and approval of the Borough Council.