

## HYDROLOGIC SOIL GROUPS

### Definition and Scope:

Hydrologic soil groups are used for estimating the runoff potential of soils on watersheds. Four groups are used based on soil properties that influence runoff.

### Assumptions:

Classification is at the end of long-duration storms occurring after prior wetting and opportunity for swelling, and without the protective effect of vegetation.

### Criteria:

Group A Soils having high infiltration rates even when thoroughly wetted, consisting chiefly of deep, well to excessively drained sands and/or gravel. These soils have a high rate of water transmission and would result in a low runoff potential.

Group B Soils having moderate infiltration rates when thoroughly wetted, consisting chiefly of moderately deep to deep, moderately well to well drained soils with moderately coarse textures. These soils have a moderate rate of water transmission.

Group C Soils having slow infiltration rates when thoroughly wetted, consisting chiefly of (1) soils with a high swelling potential, (2) soils with a high permanent water table, (3) soils with claypan or clay layer at or near the surface, and (4) shallow soils over nearly impervious materials. These soils have a very slow rate of water transmission.

Group D Soils having very slow infiltration rates when thoroughly wetted, consisting chiefly of (1) clay soils with a high swelling potential, (2) soils with a high permanent water table, (3) soils with claypan or clay layer at or near the surface, and (4) shallow soils over nearly impervious materials. These soils have a very slow rate of water transmission.

### References:

U.S.D.A. National Engineering Handbook, "Hydrology," Section 4. Soil Cons. Serv.

United States Department of Agriculture Soil Conservation Service, Berkeley, California, May 1967

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