



Hydrologic Soils Group

Hydrologic soil groups represent the rate at which water infiltrates soil types. These are grouped into four categories, A through D, based on decreasing infiltration (A = high infiltration, D = very slow infiltration). For more information see Appendix A of the Natural Resources Conservation Service (NRCS) publication [Urban Hydrology for Small Watersheds: Technical Release 55](#) (USDA NRCS, 1986). In QNSPECT, along with precipitation estimates, the hydrologic soils groups are used to estimate the infiltration capacity of the soil and water retention factor values assigned to land cover types.

Hydrologic Soil	Soil Texture	Soil Group Characteristics
A	Sand, loamy sand, or sandy loam	Soils having high infiltration rates, even when thoroughly wetted and consisting chiefly of deep, well-to-excessively drained sands or gravels. These soils have a high rate of water transmission.
B	Silt loam or loam	Soils having moderate infiltration rates when thoroughly wetted and consisting chiefly of moderately deep to deep, and moderately fine to moderately coarse textures. These soils have a moderate rate of water transmission.
C	Sandy clay loam	Soils having slow infiltration rates when thoroughly wetted and consisting chiefly of soils with a layer that impedes downward movement of water, or soils with moderately fine to fine texture. These soils have a slow rate of water transmission.
D	Clay loam, silty clay loam, sandy clay, silty clay, or clay	Soils having very slow infiltration rates when thoroughly wetted and consisting chiefly of clay soils with a high swelling potential, soils with a permanent high water table, soils with a claypan or clay layer at or near the surface, and shallow soils over nearly impervious material. These soils have a very slow rate of water transmission.