

## Water Movement Into Seasonally Frozen Soils

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Many floods of record in cold regions are produced by snow ablation. Accurate prediction of snowmelt runoff events by using computer models hinges upon an accurate understanding of the hydrologic role of frozen soils. This paper discusses the redistribution of soil moisture that takes place during the development of seasonal frost in a silty loam soil and the infiltration characteristics of this seasonally frozen soil. Depending upon the total (water and ice) soil moisture conditions near the ground surface, a wide range of infiltration rates can exist. This disparity in the infiltration rate results in considerable variation in the amount of snowmelt runoff.