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Surface Water Hydrology

Surface water hydrology includes the study of surface water movement and the distribution of surface water in space and time. Of particular interest is the variability in water quantity and flow within a year and between years. This variability in water supply is largely influenced by climate. Together with geographical characteristics such as topography, soils, and land use, hydrologic variability affects the development and character of surface water systems such as lakes and rivers.

Flow variability is also becoming increasingly recognized as an important factor in the health of riverine aquatic ecosystems (Poff *et al.* 1997). Extreme floods are important because many of the processes that shape the river occur during the largest floods, also known as reset events. Hydrologic conditions during extreme low flow periods are also important and can impact species selection. While a river system may remain relatively stable for many years under normal hydrological conditions, the natural variability, including extreme events, is part of the hydrologic regime that creates and maintains a healthy river system.



Surface water hydrology is the study of surface water.
Source: Dan Moats
(click to enlarge)

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