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Abstract

The book of "Environmental hydrology of lakes and wetlands" presents the fundamental characteristic and properties of wetland and lakes and the importance and the role of them in the aquatic systems and the cycle of life. The hydrological components of water balance at wetlands and lakes (rainfall, runoff, evapotranspiration, groundwater and interaction of groundwater and wetlands) are described. The water quality characteristics and the changes of them in space and in time are also described using mathematical formulas. Equations

and relationships which connect the water quality and the hydrological processes are also described. In two chapters the characteristics and the principles of artificial wetland design are presented. At the last chapter mathematical models that describe the water quality and the eutrophication in lakes and wetlands are described and the basic equations that used in one of these models are also presented. At the appendix a dictionary and glossary of terms that used in wetland and lake hydrology is tried to present.

