



Information exchange between short term and long term operations

Steven Weijjs

University of British Columbia, Civil Engineering, Vancouver, Canada (steven.weijjs@ubc.ca)

This research focuses on the interactions between optimal short term and long term operations of managed water systems. Stochastic Dynamic Programming is used as a framework to find and analyze optimal operations. When considering optimal operations under uncertainty, the short term operations are influenced by the long term optimal policy through the value function of the end-state at the short term horizon. Conversely, the optimal long-term operations are influenced by the value of future decisions, which is partly determined by the short term operations. This leads to a two-way information flow between short and long term operations. The implications of this information flow are discussed.