Xx is the influent flow of the ith dam and the effluent flow, and ss is the time needed for the water travel from the ith dam to the i+1th dam.

In our improved model, we can adjust the flow rate in real time to control the storage capacity of the dam in different time periods of rainfall when rainfall is a dynamic process so that hazards brought to the upstream and downstream of the dam are minimized. However, due to time limitations, we did not get the specific data needed to apply real-time control.