ABSTRACT

The area between Semarang and Demak is a flood disaster prone area, being inundated during rainy season. There are three rivers in this area, i.e. River Penggaron/Babon, River Dolok/Onggorawe, and East Floodway. They are connected by Kebonbatur Floodway and Pucanggading Floodway, forming a flood drainage system for the City of Semarang. In the recent years, the conveyance capacity of these floodway have become insufficient due to sedimentation resulting inundation in some areas. To overcome this problem, Dombo Sayung Floodway has been under construction.

This study analyses the effect of Dombo Sayung Floodway in reducing the flood discharge at River Babon and River Dolok/Onggorawe. The HEC - RAS mathematical model was used for this purpose.

The study shows that the Dombo Sayung Floodway reduces the spill over along Babon and Dolok/Onggorawe riverbanks by 2.62% - 59.45% depending on the flood discharge.

Keywords: Flood, Mitigation, and Simulation