

# **FLOOD CONTROLL CAPACITY OF NGAN TRUOI RESERVOIR FOR DOWNSTREAM OF LA RIVER BASIN, HA TINH PROVINCE, VIET NAM**

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## **Summary**

The central region of Viet Nam is frequently affected by annual floods, especially in Nghe An and Ha Tinh provinces. Ngan Truoi reservoir is built on the tributary of Ngan Sau river and it has many tasks, including flood mitigation. This article presents the results of flood simulation and evaluating flood controll capacity of Ngan Truoi reservoir for downstream of La river basin by using 1D hydrodynamic model MIKE11 with the flood that occurred in november 2010. The results show that the maximum flood value in Hoa Duyet, Linh Cam and Cho Trang decrease about 100 cm, 30 cm and 20 cm respectively when the water level of Ngan Truoi reservoir is +45.0 m or +46.0 m. In case the reservoir water level is +52.0 m, the ability to reduce floods in Hoa Duyet, Linh Cam and Cho Trang is 80 cm, 26 cm and 16 cm respectively with the reservoir water level not exceeding the elevation of +54.64 m during flood mitigation operation.

**Keywords:** *La river basin, flood controll, numerical model, reservoir operation.*