

# **KAJIAN PERMASALAHAN BANJIR SUNGAI GLUGU DI KOTA PURWODADI PROVINSI JAWA TENGAH DAN UPAYA PENGENDALIANNYA (STUDI KASUS BANJIR 25 DESEMBER**

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07/262410/PMU/5199

Telah dipertahankan di depan Dewan Penguji  
Pada tanggal 2 Maret 2009

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## **ABSTRACT**

Flood happened on 25th Dec 2007 as result of bubbling up Glugu River has paralysed life activity during around 1 week in Kota Purwodadi Kabupaten Grobogan. This research is conducted to analyse flood cause factors including rainfall effect, land use change, bank full capacity and backwater contribution due to Lusi River as estuary of Glugu River. Rainfall effect is analysed by comparing discharge (Q) of Glugu River due to high outliers with other based on threshold rain series.

The influence of land use change is obtained by comparing discharge due to difference of its CN value. From the result indicates that dominance factor of flood are backwater of Lusi River, bank full capacity which is small, and rain influence on 25th Dec 2007. Backwater increases elevation of maximum water surface significantly along the length of 3.10 kms and flood as result of backwater requires 4.30 longer times to withdraw.

Flood control in the form of river normalization and flood levee can reduce elevation of maximum water surface around 35 % and increases channel velocity along the length of river station until 55 % compared to existing one.

### **Keywords :**

*dominance factor of flood, HEC-RAS, flood control*