

Analisis debit dan muka air banjir sungai Simpang Aur - Lemau dengan adanya PLTA Musi Kabupaten Bengkulu utara = Analysis of water discharge and flood level of Simpang Aur-Lemau river with the presence of PLTA of Musi in North Bengkulu district

Eka Kurniawan, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20248511&lokasi=lokal>

Abstrak

Beroperasinya Pembangkit Listrik Tenaga Air (PLTA) Musi akan semakin memperkuat pasokan listrik di wilayah Sumatera, khususnya wilayah Sumatera bagian Selatan dan Tengah sekitar 60% pasokan listriknya dipenuhi dari PLTA Musi. PLTA Musi memiliki kapasitas energi sebesar 210 MW (3 x 70 MW). Kegiatan operasi PLTA Musi dari outletnya memberikan dampak penambahan debit air secara menerus, sesuai dengan pengoperasian pintu Re-Regulating Dam (RRD) PLTA Musi sebagai pembuangan akhir ke Sungai Simpang Aur-Lemau sebesar 15.50 m³/detik sehingga menimbulkan persoalan banjir di bagian hilir PLTA Musi, maka diperlukan langkah-langkah untuk mengatasi keterbatasan kapasitas Sungai Simpang Aur-Lemau. Pemodelan Sungai Simpang Aur-Lemau sepanjang 54 km dari arah muara dan analisis simulasi menggunakan software HEC-RAS versi 3.1.3. Skenario reduksi muka air banjir salah satunya dengan menggunakan tanggul sebagai alternatif pengendalian banjir.

By Operating of Hydroelectric Generator (PLTA) of Musi will more strengthen electric supply in the Sumatera region, particularly in part of south and middle Sumatera. It is about 60% of electric supply obtained from Hydroelectric Generator (PLTA) of Musi. PLTA of Musi has energy capacity as much as 210 MW (3 x 70 MW). Impact of this outlet operation adds water discharge continually, because the operational of Basin Re-Regulating (RRD) of dam of Musi PLTA as a place of final drainage to Simpang Aur-Lemau River as much as 15.50 m³/seconds causing flooding problem in PLTA Musi downstream, as a result of it needs to be implemented kind of solutions to overcome capacity limitation of Simpang Aur-Lemau River. Modeling of Simpang Aur-Lemau River as far as 54 km from outfall direction and simulation analysis using HEC-RAS version 3.1.3 software. One of scenario of flood reduction using dike as an alternative of flood controlling.