

## **ABSTRAK**

Abutmen adalah bangunan bawah jembatan yang terletak pada kedua ujung jembatan, berfungsi sebagai pemikul seluruh beban hidup (angin, kendaraan, dll) dan beban mati (beban gelagar, dll) pada jembatan. bagian konstruksi jembatan yang terletak di tepi sungai yang merupakan pangkal jembatan yang berfungsi sebagai tumpuan beban jembatan. Walaupun terletak di tepi sungai, dasar sungai di sekitar abutmen dapat pula mengalami gerusan yang diakibatkan oleh perubahan pola aliran, karena struktur abutmen selalu berhubungan langsung dengan aliran sungai. Jembatan yang melintas di atas suatu sungai mempengaruhi karakteristik aliran, yang diakibatkan terhambatnya aliran akibat adanya abutmen jembatan. Peningkatan arus yang melintas di bawah jembatan dan aliran turbulen yang terbentuk adanya tebing sungai menghasilkan gerusan lokal (local scouring) yang dapat mengakibatkan penurunan material disekitar konstruksi abutmen sebagai pelindung pilar jembatan, abutmen jembatan yang berada dalam aliran air menyebabkan terhambatnya aliran selain juga akibat adanya abutment jembatan. Perubahan aliran akibat adanya abutment jembatan mengakibatkan peningkatan arus disekitar abutmen.

Kata kunci : local scouring, uji model hidraulik, pilar jembatan

## ABSTRACT

*The abutment is the sub-structure of the bridge located at both ends of the bridge, which functions as a carrier for all live loads (wind, vehicles, etc.) and dead loads (girder loads, etc.) on the bridge. the part of the bridge construction located on the bank of the river which is the base of the bridge that functions as the bridge's load fulcrum. Even though it is located on the riverbank, the riverbed around the abutment can also experience scouring caused by changes in flow patterns, because the abutment structure is always directly related to river flow. The bridge crossing over a river affects the flow characteristics, which is caused by the obstruction of flow due to the bridge abutments. The increase in current that passes under the bridge and the turbulent flow formed by the river bank results in local scouring which can result in a decrease in material around the abutment construction as a bridge pier protector, bridge abutments that are in the flow of water cause flow obstruction as well as due to the abutment bridge. Changes in flow due to the bridge abutment resulted in an increase in current around the abutment.*

*Keywords : local scouring, hydraulic model test, bridge pillar*