

STUDY OF SEDIMENT TRANSPORT IN THE BIFURCATION OF THE MEZCALAPA RIVER, STATE OF TABASCO, MEXICO

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Happened the fluvio-morphologic and sedimentologic change in the bifurcation of the Mezcalapa River, formed by the rivers Samaria and Carrizal, located in the Southeastern of Mexico, in which originally the greater part of the discharge slipped by the Samaria River, nevertheless several years ago has been observed a tendency to revert this behavior, noticing an increase of the expenses by the Carrizal River, that brought like consequence that the year 1999, which it was time of extraordinary avenues increased the draining by the Carrizal River, which produced serious floods in the city of Villahermosa, State Capital of Tabasco, Mexico. These changes in the distribution of discharges in the bifurcation of the Mezcalapa River due to the sediment deposit in the bifurcation, which becomes serious during the 1999 avenues, (Gracia et al, 2003). In this work are the results of the campaigns of measurement of the sediment transport, discharge liquid gauging and obtaining of flow-lines in the bifurcation made in years 2002 and 2003, with the purpose of understanding the fluvio-morphologic operation of the fluvial system, of evaluating the distribution of the solid and liquid discharge and to determine the axes of sediment transport to know the direction that follows sediments in suspension. The knowledge of the collected data allows to understand better the behavior than the rivers display and to take advantage of the results in the handling different alternatives from solution in the bifurcation of the Mezcalapa River.

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