TRANSPORT SEDIMENT AND MORPHOLOGICAL CHANGE OF PORONG RIVER DUE TO SIDOARJO MUD VOLCANO DISCHARGE, EAST JAVA.

It has been 7 years since the first mud volcano eruption at sidoarjo, east java. Nobody know when this phenomenon will be stopped. As prevention to keep the impact areas mapping, hence the mud volcano was flowed to porong river. And it has made the controversy between society, especially people who lived around the river. They were afraid about the sedimentation and the morphological change at porong river that can caused flood when rainy season come. This study will try to answer their anxious using MIKE 21 (hydrodynamic module and Mud transport module). There are 2 scenario on simulation, rainy and dry season. The result of hydrodynamic simulation shows that current speed average in rainy season is 0.5 m/s and 0.3 m/s for dry season. The spread of suspended sediment concentration is follow the the terms of current speed and direction. KP 255 is the most vulnerable due to sedimentation.

Key notes : Transport sediment, morphological change, Lusi, MIKE 21.
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