

Proposal of new embankment ~Proposal of prevention method of piping phenomenon

*Daiki Tanabe¹, *Soshi Hirata¹

1. FUKUI PREFECTURAL WAKASA SENIOR HIGH SCHOOL

Nowadays, lots of water damages caused by piping phenomenon have reported throughout Japan. As the water levels of the river increase, river bottom receives stronger pressure from water. If water penetrability of river bottom is higher, water penetrates into soil and build water path and flood hits the cities. It is called piping phenomenon.

There is no preventive measure against piping phenomenon, so that we aim to research river bottom structure which is supposed to be one of the causes of piping phenomenon. Piping phenomenon occurs when river bottom receives strong water pressure, therefore we focus on river bottom structure in order to reduce water pressure. We made a following hypothesis about prevention against piping phenomenon, If bottom space of river is wider, piping phenomenon will be prevented. We will build a miniature model of river as an experimental equipment to verify our hypothesis.

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