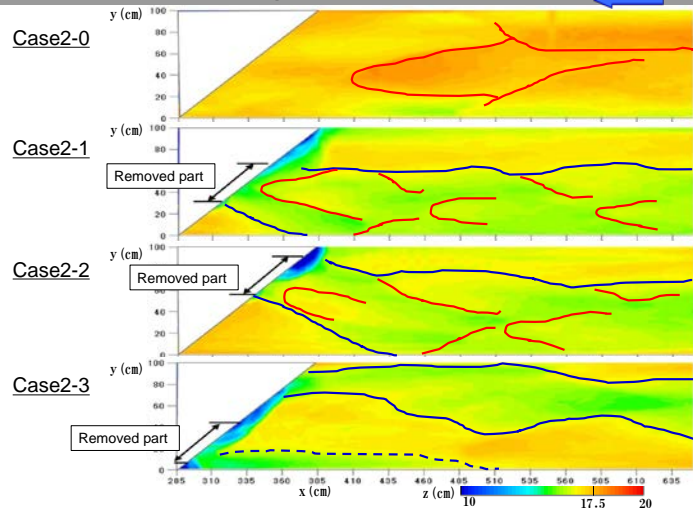




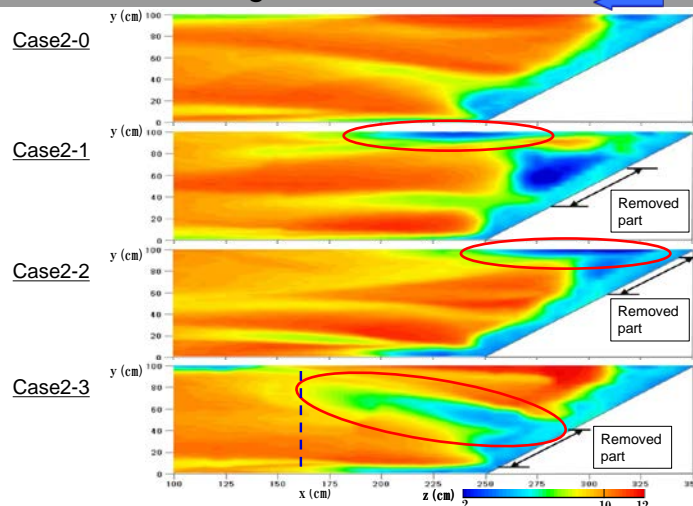
Bed Evolution Around Partially Removed Falling Works

Professor MUTO, Yasunori

Bed configurations: Upstream



Bed configurations: Downstream



Content:

Dams and falling works usually contribute river bed stabilisation, but they at the same time bring some defects on river environments, such as yielding a still water section, depositing sediments there, and preventing fish migrations. Several engineering schemes can be considered to improve such a situation, i.e. full removal, height reduction, redesigning such as slit-type, etc. These schemes, however, naturally cause bed degradation in the upstream reach and abrupt increase of sediment supply in the downstream reach, then it possibly leads to channel instability. Owing to the lack of information on river bed change following dam removal or falling works improvement, these schemes have not widely adopted in real rivers.

A series of experiments were conducted to study effects of falling works improvement on scouring and bed evolution around it. Water surface profiles, velocity distributions and bed configurations at an equilibrium condition were measured.

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Tel. +81-88-656-7329
Fax: +81-88-656-7329

