

# Reasonable Design and Work Execution Method for Rich-in-nature River Structures

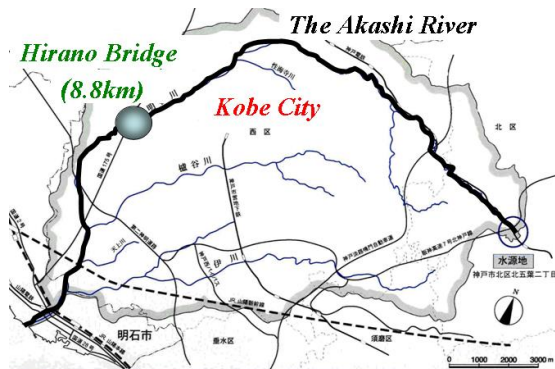


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Keywords	flood disaster, river structure, river environment, bed deformation, sedimentation		
Technical Support Skills	<ul style="list-style-type: none"> <li>Reasonable design and work execution method for Rich-in-nature river structures</li> <li>Effective utilization of timber and bamboo from forest-thinning for river control</li> <li>Appropriate technology for control of woods in river channel</li> <li>Estimation and control of morphology dynamics in estuarine area</li> </ul>		

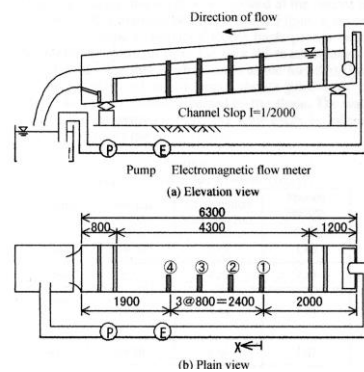
## Research Contents

## Reasonable Design and Work Execution Method for Rich-in-nature River Structures

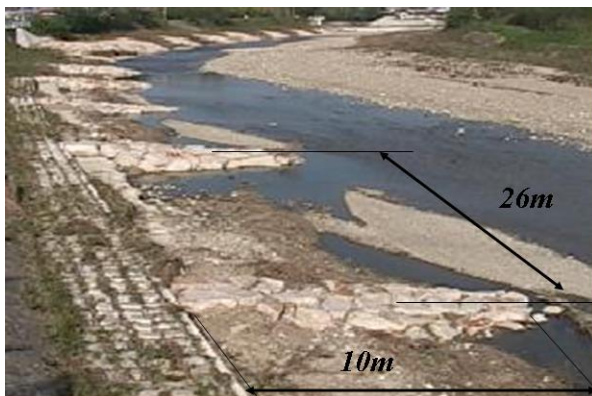
In Japan, flood control safety has been improved since the Meiji Era together with progress in modern civil engineering technology, in heavily populated urban districts where rivers are artificially straightened, thereby accelerating destruction of natural environments. For this reason, today, a trend exists by which river construction methods are richly endowed with natural materials, numerous stones and wooden materials, to retain rich natural environments provided by rivers. In this study, we attempted to clarify characteristics of flows and river bed deformations around spur dikes using field observations, model experiments and 2-D numerical simulations that specifically examine stone-lined spur dikes constructed downstream from the Hirano bridge of the Akashi River.



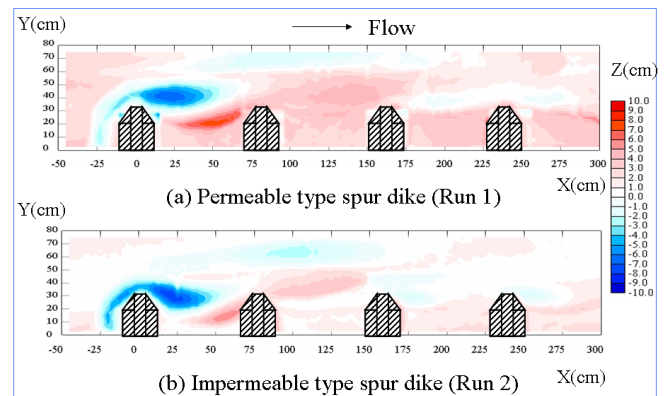
Outline of the Akashi River Basin



Outline of experimental apparatus and spur dike model



Spur dikes downstream of Hirano Bridge



Results of riverbed fluctuation around spur dikes

## Available Facilities and Equipment

High speed digital camera(KATOKOKEN CO)	
ADCP(River Surveyor)(CONTEC)	