橋梁への流木集積と水位せきあげに関する水理的考察

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Hydraulic Study on Accumulation of Drifting Wood at a Bridge During a Flood.

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概要

橋脚による水位上昇量は、河道の流下能力検討の一環として重要であり、種々の公式により算定される。ところが大量の流木が橋梁に集積した場合には、水位上昇量は遥かに大きく溢水破堤や取り付け道路崩壊等の危険性が高くなるため、これを精度よく見積もることが重要となってくる。流木の集積とそれによる水位上昇量の流木条件(流出量や太さ、長さ等)や橋梁諸元(径間、桁下余裕高等)との関係についてはまだ不明な点が多い。

本報告書は、これを明らかにするために水理的検討を行い、河道計画や治水対策に活かすための参考となる資料を取り纏めたものである。

キーワード:

橋梁、流木集積、水位せきあげ、径間、桁下余裕高、水理模型実験

Synopsis

Swell head by pier is important as one of the study at capacity of flow, and swell head by pier is estimated by several formulas. However, When of drifting wood are accumulated, swell head is larger than by only pier, and risk of levee break rises. Therefore estimation of swell head by accumulation of drifting wood is very important. But relationship swell head and drifting wood condition is not clear yet.

This report was completed that we studied actual instances and hydraulic model test about the span and freeboard at the bridge when drifting wood was sticked at a bridge during a flood. And it is for references that we study planning of river and flood control.

Key Words:

Bridge, Accumulation of drifting wood, Swell head, Span and Freeboard of bridge, Hydraulic model test