

Keywords

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## Forensic investigation of fluvial flood damage in the Czech Republic

A number of structures were affected by flooding in August 2002 in the Czech Republic. In particular, damage to structures adjacent to the Vltava River in Prague was on an unprecedented scale. This paper reports on a forensic investigation to assess whether the flooding was exceptional and to identify the main causes of structural failure. The work included statistical analysis of hydrological data dating back to 1827, from which it was shown the 2002 event had a considerably long return period. However, the investigation also revealed lack of structural robustness may have contributed to disproportionate failure.

Many parts of the Czech Republic suffered from unprecedented fluvial flooding in August 2002, which overwhelmed most existing flood

protection. Emergency measures included protective barriers, immediate removal of floating debris from bridges, additional anchors



Figure 1. The Vltava River in Prague during the catastrophic flooding in August 2002