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## Grain-size analysis and identification of flood-related sedimentary features of crevasse-splay deposits

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This study addresses procedures for identifying flood-related sedimentary features in view of their future incorporation into community-based hazard mapping. The study area selected is large-scale crevasse-splay deposits of downstream area of the Kizu River located in southern part of Kyoto. It is likely that these flood-related subsurface features were formed by the levee breaching cases occurred in 1859 or 1876. The crevasse-splay deposits were investigated using non-destructive geophysical explorations, specifically in terms of resistivity prospecting, surface-wave seismic profiling and ground penetrating radar system. Considering the surrounding depositional environments and performance of geophysical explorations, the authors estimated that the sediment discharge associated with the levee breaching. The related hydraulic calculations led to an estimate for the flooding discharge involved.

Keywords: flood-related sedimentary features, crevasse-splay deposits, non-destructive subsurface explorations, grain-size analysis