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## An explanation of the inversion of water level in the two historical flood events along the Arakawa, central Japan

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We intend to explain why the 1859 flood left the record of higher water level than that of the 1742 flood in the terrace-gorge reach around Nagatoro along the upper Arakawa, in spite that many historical documents indicate less magnitude of the 1859 flood than that of the 1742 one. Comparative investigation of cross-sectional areas in the reach suggests that the higher water level of the 1859 flood was enabled by either temporal blockage of channel occurred in the 1859 flood or local rise of river bed produced in the 1742 flood.

Keywords: Arakawa, 1742 flood, 1859 flood, aggradation, water level