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# Numerical modelling of sediment transport in a channel bend with floating units

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Floating units/booms are used to trap or guide floating debris in watercourses. In a relatively shallow depth, these floats could affect the velocity distribution, sediment transport and channel bed deformation. A three-dimensional non-hydrostatic numerical modelling was performed in a 180 degree channel bend with floats to see the effects in flow distribution and bed deformation as a conceptual study. Different configurations of the floats were simulated. The results showed that the flow velocity increased and deposition decreased at the inner bank of the bend. Use of floating units could be studied to alter sediment deposition pattern and sediment transport phenomenon in watercourses.