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# Investigating the sediment transport processes in a river meander

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**Proposed session:** *River, estuaries, maritime, coastal sediment processes*

**Keywords:** Telemac-2D, Telemac-3D, secondary currents, suspended load transport modelling

**Speaker:** Clemens Dorfmann

**Abstract:** At the river Drau a river-hydro power plant has to confront severe sedimentation problems. In the river meander (Figure 1), which represents only a section of the reservoir, guide walls have been constructed as well as dredging activities have been carried out in order to facilitate the suspended load transport and to prevent the disordered deposition of sediments. However the bed elevation measurements carried out in recent years indicate that additional measures have to be adopted in order to reduce the sedimentation. The scope of the work presented herein is the evaluation of different construction measures in the river meander by means of numerical modelling. The numerical modelling is supported by high-resolution multibeam echosounding data and ADCP velocity measurements. To assess the performance of the different measures, one idea is, to run suspended load transport simulations using synthetic concentrations as well as sediment inflows and to evaluate the sediment outflows.

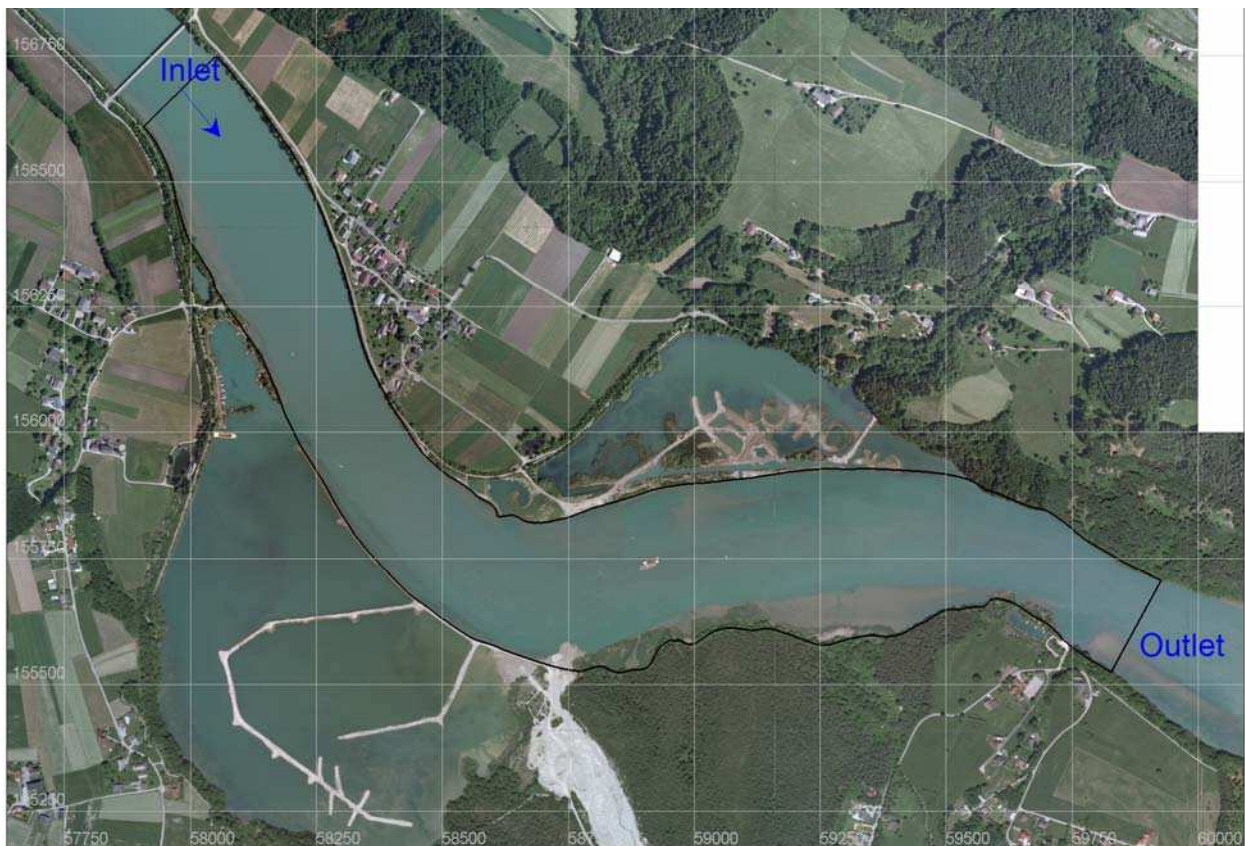


Figure 1 : Project area, (image source : Verbund VHP)