Simulation of Flow Patterns in Vertical Slot Fishway with Cylindrical Obstacles

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Abstract : Numerical results of vertical slot fishways with and without cylinders study are presented. The simulated results and the measured data in the fishways are compared to validate the application of the model. This investigation is made using FLUENT V.6.3, a Computational Fluid Dynamics solver. Advantages of using these types of numerical tools are the possibility of avoiding the St.-Venant equations' limitations, and turbulence can be modeled by means of different models such as the k-ε model. In general, the present study has demonstrated that the CFD model could be useful for analysis and design of vertical slot fishways with cylinders.