



Metrology: Instrumentation of an overflow pipe without carrying out construction work on the structure



Challenge

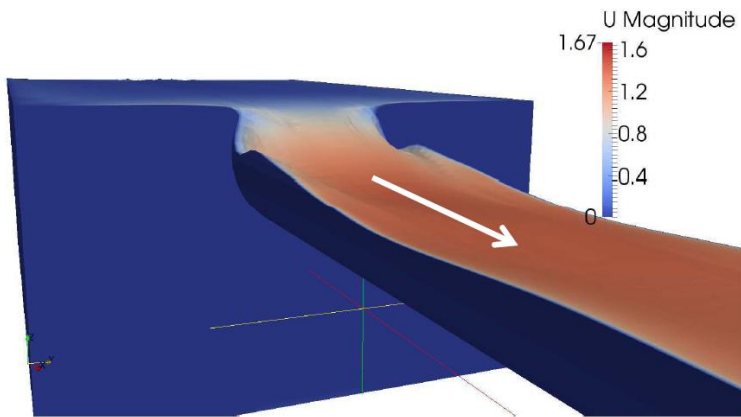
Application of Article 17 of the French **Order of 21 July 2015**:

- **Measuring** the daily overflow time
- **Estimating or measuring** overflow rates

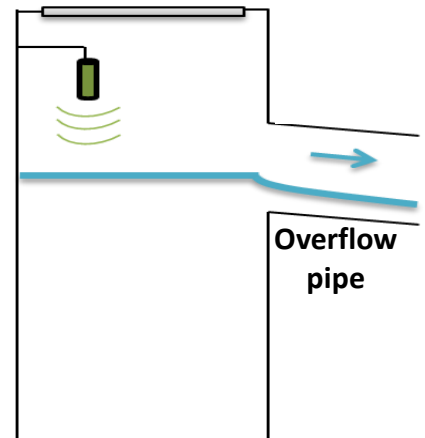


The 3D EAU solution

Evaluating the overflow rate using one or two **water level sensors, without carrying out work** on the structure



3D numerical simulation result aiming to calibrate the head-discharge relationship directly applicable at the present time

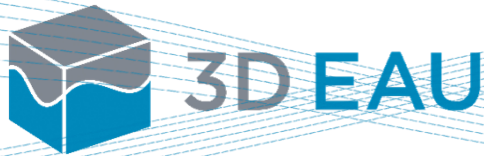


Implementation of the method on a overflow pipe in a pumping station



Advantages

- ⊙ No civil engineering modifications to the structure
- ⊙ Easy operation and maintenance of the instrumentation
- ⊙ Head-discharge relationship calibrated with 3D modelling, thereby reducing the uncertainty associated with the evaluation of the flow



Hydraulic 3D modelling at the service of water and the environment

Our services



Self-monitoring

Development of measurement systems adapted to the hydraulic configuration and the unique characteristics of each structure.



Continuous monitoring

Definition of the position and type of measuring device adapted to the objectives of the continuous monitoring

Feasibility and optimisation study

Validation or optimisation of the design of structures prior to construction in order to guarantee their correct operation.



Design and manufacture of hydraulic equipment

Manufacture of reliable and robust solutions to reduce overflows and/or deposits by combining Hydrass's experience and 3D EAU's hydraulic expertise.



Strasbourg

21 rue Jacobi-Netter, 67 200 Strasbourg

Paris

3 rue des camélias, 75014 Paris

Lyon

845 rue Louis Arnal, 69380 Lozanne