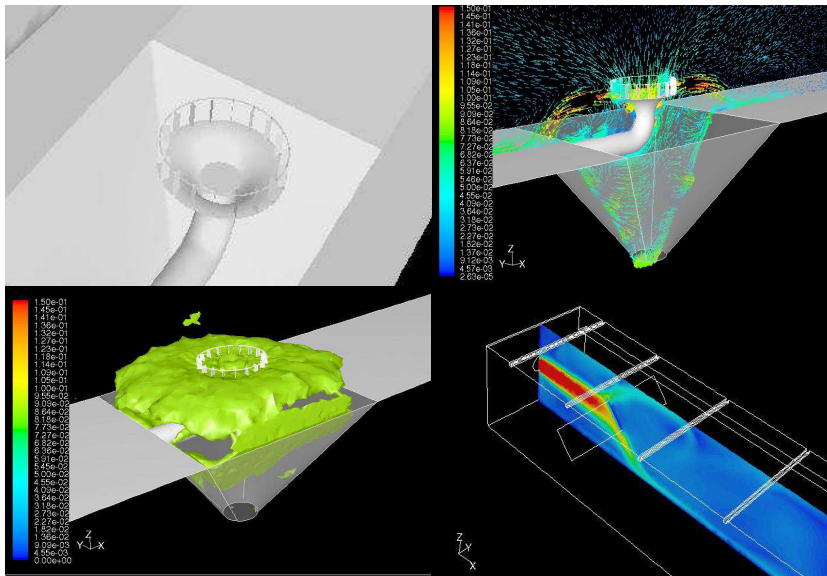


Helsinki WwTW - Clarifier Optimisation

Viikinmäki WwTP is a 280,000 m³/d wastewater treatment plant serving the population of Helsinki, approximately one million residents, and local industry in the Helsinki metropolitan area.

The plant is constructed entirely within a natural cave and this unique aesthetic and environmental design restricts opportunities for expansion. At high flows in particular, the clarifiers were shown to limit the removal of solids.



Improvements to the clarifier inlet were identified which could dramatically enhance the performance of the plant at high flows.

On this occasion, as with most projects we work on, The Fluid Group worked closely with the client to identify potential areas for improvement beyond the scope of the project.

State-of-the-art modelling is the tool we use, but solving your problem is our goal.

The Fluid Group provides expertise in a range of simulation techniques including:

- CFD (ANSYS Fluent)
- Process (GPS-X)

Recent projects using CFD include:

- Kennick Reservoir Spillway Modelling – Dartmoor National Park
- Hornsey WTW Pumping Stations
- Helsinki WwTW Clarifiers
- Boltshagen WwTW Settlement Tanks
- Lound WTW – Northumbrian Water
- Integrated Process/CFD simulation
- Reservoir improvement
- Clarifier optimisation
- Flow split prediction
- Digester mixing, and
- Acoustic modelling

plus ...

air profiling and fluid flow in and around a range of structures: from commercially sensitive turbo-machinery, to new designs in the built environment.

To discuss potential projects, contact us:

Tel. 0845 055 8571, or
email: info@thefluidgroup.com

The Fluid Group are specialists in Computational Fluid Dynamics & Process Modelling for Chemical Engineering, Water and Wastewater Treatment.

Dynamic Simulation or Steady State

- Effective selection of the best technique for each job,
- The ability to combine techniques in-house.

Multiphase

- Air, water/chemical & solids modelled simultaneously, standard within our models,

3 Dimensional

- Accurate 3D model of existing structures,
- Model wireframes can be imported from existing 2D and 3D CAD designs.

Fully Inclusive Quotation

- All known options inclusive at fixed price,
- Fast turnover, one-to-one availability,
- No hidden costs.

Animation and still images included

- Images and animation at client's request, all free within the project, for commercial use.

Flexibility and Innovation

- All-inclusive combination with Process and 2D Hydraulic/Network modelling if required.