



University of Brighton

Centre for Aquatic Environments

The Centre for Aquatic Environments is an interdisciplinary research centre providing scientific evidence and people-focused solutions for the responsible management of water resources and aquatic ecosystems.

We focus on three main research areas:

- Surface processes: Quantifying and modelling the hydro-morphological and ecological dynamics of rivers, wetlands and coastal environments
- Water and wastewater quality and treatment: Identifying waterborne diseases and pollutants, and developing water quality remediation for environmental and public health
- Water services and water use: Valuing aquatic ecosystem services and progressing policies for water-related communities and environments

+ We work with:

- The Environment Agency (UK) to control invasive non-native aquatic plants
- UNICEF (Africa) to advise on the provision of safe water in rural Malawi
- Southern Water (UK) to predict areas at risk from metaldehyde peaks
- Fisheries Local Action Groups (UK) to capture the cultural values of inshore fishing
- Bill and Melinda Gates Foundation (USA) to tackle typhoid transmission in urban India

+ Key facilities

Our specialist research facilities include a Category-2 microbiology laboratory, water quality laboratories, experimental river flumes, geochemical and mineralogical analytical equipment (XPS, ICP-MS, XRF), fixed-wing and quadcopter drones, differential GPS and TLS, and an array of field monitoring equipment.



Our work with our partners is helping to monitor and control invasive aquatic plants, quantify morphological change in dynamic rivers and estuaries, enhance wastewater recycling, address water quality problems and safeguard drinking water sources."

+ Impact of our research and enterprise

Waterborne diseases

Working with Médecins Sans Frontières after the earthquake in Haiti, our team created the first low-cost, on-site emergency disinfection process for cholera treatment centre wastewaters.

Opening up our waterways

Our research has been instrumental in helping shape new policies on recreational access to inland waterways.

Cleaner water with nanotechnology

Our research has enabled the production of tailored high-reactivity nanodevices for the removal of problem contaminants and the development of new, cost-effective water treatment tools.

Improving management of coastal environments

Our research has led to new design of managed realignment sites for coastal protection and habitat creation.