

When Natural Resources Wales visited our client regarding a surface water abstraction issue, Envireau Water was called in to find a new solution.



## The Challenge

Our client manages an agricultural estate and had three existing licences from the 1920s; to impound and abstract water from a river for Hydroelectric Power (HEP) and to supply water to the cottages on the estate for domestic use. The abstraction took place via an impoundment weir and side offtake from the river.

The current abstraction was in breach of their licensed volume and as a result, Natural Resources Wales (NRW) issued them with compliance orders. These revolved around the set-up of the impoundment weir and the supply of water for the HEP and cottages. Envireau Water accepted the challenge and began to find new solutions.



## The Envireau Way

Our team started with a site survey, reviewing the current licences and the local hydrology. A key problem was how to sustain the minimum volume of water in the river offtake system, which supplied water to the cottages year-round as well as the HEP. However, this supply conflicted with the conditions of all three of the licences our client held.

Extensive discussions over the possible solutions with NRW took place to agree the best solution. Our team of surface water specialists assessed the flow conditions of the watercourse and provided calculations and drawings for the re-design of the impoundment weir.



With minimal changes to the overall structure of the weir, the domestic supply to the cottages could be maintained whilst also complying to the abstraction conditions which were in place for the HEP licence, optimising the abstracted quantity and maximising power generation.

## Need our help?

Does this project sound familiar with your own? Our team has many years of experience, understanding natural water systems as well as detailed knowledge of the UK regulatory framework. This makes us uniquely placed to help you solve your complex, water-related problems.

Get in touch with our surface water lead, [LeeClarke@envireauwater.co.uk](mailto:LeeClarke@envireauwater.co.uk) or call us on **01332 871 882** to see how we can help.



## The Result

After many months of discussion with NRW, Envireau Water delivered a new licensing solution along with the revocation of the compliance orders. The new licences allowed an increased summer abstraction quantity, increased power generation and a year-round supply for domestic use.