

River quality test results in Modbury catchment area

On October 25th I made an online enquiry to South West Water asking for information on water quality downstream from the Modbury Water treatment plant at Swanbridge. I was then diverted to other staff at SWW who somehow lost my e-mail and eventually was told to write to Environment Agency with a freedom of information request. I also asked for any information they may have about fish and eels in the brook, following concern from a resident.

They supplied me with a link to many pages of data from various years:

Waterbody classification information for this watercourse and the River Erme catchment and Ecology (Macrophyte, Diatom and Invert data) data can be viewed on the Catchment data explorer:

<https://environment.data.gov.uk/catchment-planning/>

Unfortunately, we don't monitor this section of river for fish. However, our team have advised that while out in the field they have seen brown trout, sea trout, eels and lampreys in the Brook. As these fish need good quality water that has high levels of oxygen, they would say that the presence of these fish indicate good water quality and the right habitat to sustain these types of fish. The duty to make information available to you under EIR Regulation 5(1) does not arise because in accordance with EIR Regulation 3(2) we do not hold the information you have requested

The supplied data is very detailed and needs an expert to analyse it properly, but a few things stood out for me as a lay person:

1. Most of the ecological classifications were overall "Moderate"
2. However it FAILED on 3 chemicals present – a high level of Mercury and its compounds, Phosphates (moderate fail) and a high level of Polybrominated diphenyl ethers – known as PBDE

Reasons for not achieving good results (RNAG) for phosphates were confirmed as intermittent and continuous sewage discharge - Water Authority responsibility, and agricultural and rural land management – livestock and bank erosion.

I couldn't find any more detail on cause of high level of mercury or PDBEs, but is probably somewhere in the masses of information.

From research: *Polybrominated diphenyl ethers (PBDEs) and polybrominated biphenyls (PBBs) belong to a **class of chemicals** that are added to certain manufactured products in order to reduce the chances that the products will catch on fire. ... Some PBDEs can build up in certain fish and mammals when they eat contaminated food or water.*

The Environment Agency have Objectives for improving water quality up to Good

Under Ecological – phosphates - they have *low confidence because disproportionately expensive by 2027 !*

Under Chemicals they hope to achieve Good for Mercury by 2040, and for PDBEs by 2063 !
Reasons: Natural conditions, chemical status recovery time.

As I said earlier there is a mass of information and I've extracted just a few items from the surveys between the Water Treatment plant and Cotlass Bridge.

There are other monitoring points further downstream and also information about Sheephams Brook, Lud Brook and the River Erme.

Jeff Booth 24/02/22