

# CROWD: Clean Rivers Of West Dorset

MEETING WITH THE ENVIRONMENT AGENCY ~ 24TH FEBRUARY 2025

**Present:** For EA: Fiona White (Analysis and Reporting Team Leader), Jim Flory (Area Environment Manager), Yasmin Guler (Analysis and Reporting Team; overseeing monitoring in the W. Dorset Streams Catchment). For RCAG: Andrew Carey, John Kenward.

Many thanks to Fiona for reading our Report and arranging the meeting and to Fiona, Jim and Yasmin for giving their valuable time to talk to us.

## Relevant EA activities:

- When the EA investigates why a **designated inland bathing water** fails, it uses bacterial and chemical data, etc. collected twice yearly from these sites by its on-the-ground team. The recently designated inland bathing waters will almost certainly fail because inland sewage treatment works do not remove bacteria and have not been required to do so as the bacteria don't generally affect the *ecological* health of the river. Bacteria only become a factor if a river is designated as a BW and then has standards associated with *human* health (protecting people bathing in the river).
- A **River Surveillance Network** team has been set up to provide statistical analysis of the ecological state of England's rivers nationwide. It is a key part of the [Natural Capital and Ecosystems Assessment](#) (NCEA). National programmes drive much of the monitoring that is now undertaken by the EA which include looking at ecology, invertebrates, other wildlife and macrophytes (large plants). Water health/quality indicators used include dissolved oxygen, ammonia, conductivity, temperature, pH, and turbidity. The EA's standard suite for assessing for the Water Framework Directive is: pH, temperature, conductivity, ammoniacal nitrogen, total oxidised nitrogen, nitrate, nitrite, ammonia, alkalinity to pH 4.5 as CaCO<sub>3</sub>, orthophosphate, dissolved oxygen (% saturation and as O<sub>2</sub>).
- **What needs to be changed to achieve our ends?** Legislation (which could emerge from the NCEA) to address toxic chemicals (e.g. pesticides) and address climate change. These are national problems and need strategic national level solutions. This is what they are working towards. At a local level we can help with the eco-monitoring that the EA can't do due to funding and manpower constraints.

## Our River Char Pollution Report and future testing:

- There is general conflation of ecological and human health/bathing water quality issues. We need to be clearer in distinguishing between these two, separating bacteriological and ecological health.
- Where **phosphorus** is measured, it is orthophosphate that the EA records and we should do the same (we have orthophosphate figures from Wessex Water as well as the Total Phosphorus figures currently quoted).
- Calculating the **aluminium** threshold is very complicated. In general, the EA advised that it's probably not worth continuing to **test for metals** now that we have a background picture of metal levels. Spikes in the levels of aluminium and iron after rain are likely to come from the soil.
- As we are looking for point sources, the EA advised that it's not necessary to continue to test for **enterococci** now we have a background picture of levels and provided we continue testing for *E. coli*.
- There is no point prioritising tests for **road runoff** as we're unlikely to be able to do anything about it.
- **Sea water monitoring** east of the river mouth. The EA might do indicative tests (as it did at Seatown) if we can show that more people are now swimming to the east of the river/LSO at Charmouth Beach. **ACTION: Andrew/John** to get data/photographs this summer and tell Defra (bathingwater@defra.gsi.gov.uk)

### EA may be able to help us with:

- **Microbial Source Tracking** to differentiate human from ruminant sewage/slurry by Polymerase Chain Reaction (PCR) method of DNA amplification. This is very sensitive. **ACTION: Jim** to investigate whether EA could analyse a series of samples from us on this basis.
- The **diatom** status of the river is more useful than macrophytes for assessing the ecological health of the River Char because of its morphology, e.g. overhanging tree shading. **ACTION: Yasmin** will send us diatom data for the Char.

### Other takeaways:

- **Fish monitoring:** This is specialised and hasn't been done recently on the Char. There is open access for us to view the data via the [EA Water Hub](#).
- **Sharing our data with the EA** (as with WW): Sharing our ecological data can add to the Weight of Evidence which helps to inform the EA's Reasons for Not Achieving Good on any river. Our ecological and bacteriological data adds to the EA's understanding of the catchment and can inform whether there is an issue and where it may be arising.
- **How to monitor diatoms:** FSC has [a good book on this](#), available from NHBS.
- **Macrophyte** levels in the Char are likely to be poor because the river is so fast flowing.
- Orthophosphate – where does most of it come from? Geological, sewage effluents, agricultural effluents. It is the water soluble phosphorus-containing molecule most available for plant growth, hence for causing eutrophication in the river. It is a very useful indicator of nutrient enrichment.
- **Phosphate thresholds** are site specific, dependent on altitude, temperature and pH. They are calculated for each site from fixed constants relating to these factors then applying this result to the actual orthophosphate factor we find during monitoring, to give the threshold for that site. Yasmin has identified the P threshold for our five testing sites on the River Char if we can't do it ourselves.
- What can EA do about **enforcement** in the catchment? Unexpectedly high or low levels of something motivates the EA to investigate. Report suspected polluting events on the EA Hotline: 0800 80 70 60. Anyone can report here, and they don't have to give their name – just location and cause of suspicion.
- Private **sewage systems** – are usually the responsibility of Dorset Council. Sites like caravan parks and campsites are best dealt with by the EA – there would have to be a permit issued with the conditions attached so we can check these ourselves as they are all available online.
- **Chemcatchers** are passive sampling devices used for monitoring pollutants in aquatic environments.
- The EA confirmed Wessex water's view that **sondes** are difficult and expensive to maintain and data can be unreliable.