

Clean Harbours Partnership

"Turning the tide on harbour pollution"

Project Spotlight Update: Issue 2, May 2022

This is the second update for those that have generously sponsored Project Spotlight – a citizen science study researching water quality in Chichester and Langstone Harbours.

CHP aims to "Investigate – Inform – Improve" and this second issue is published shortly after some 40 locals completed a key stage of the study – a 5-day water sampling programme around both harbours. Lab results are not expected until June/July but already the project is making national news.

A **big thankyou** to the army of volunteers from sponsor organisations, who spent 5 mornings taking water samples from 25 locations – to our knowledge, the largest citizen science water sampling exercise ever attempted locally.

Test sites were spread around both harbours including: The Kench and HISC beach at the harbour entrances; the 3 main tributaries – River Lavant, Ems and Hermitage; as well as adjacent to the harbour's 4 wastewater treatment works (wwtw). Over **250 samples** have been frozen and passed to Brunel university for analysis over the coming weeks.



1. Clare at The Ship Causeway 2. Richard at Bosham Harbour
3. Beth at Langstone Oyster Beds 4. Bianca at Emsworth Pontoon

Patiently Awaiting Rain

Phase 3 of Project Spotlight has therefore been completed. This follows a study of Southern Water's discharge data by Professor Peter Hammond (Phase 1) and Professor Alex Ford's collection of 5 species for similar chemical analysis (Phase 2).

Two phases remain - post storm water sampling and eDNA testing – both need substantial rainfall which we have been patiently waiting for since February.

New evidence of substantial pollution

In line with CHP's goals, investigations are starting to uncover facts to help raise awareness and influence improvement.

Professor Hammond's data analysis found evidence suggesting some 182 unpermitted stormwater discharges into our harbours between 2017-21. This information has been passed to the Environment Agency and a formal response is awaited.

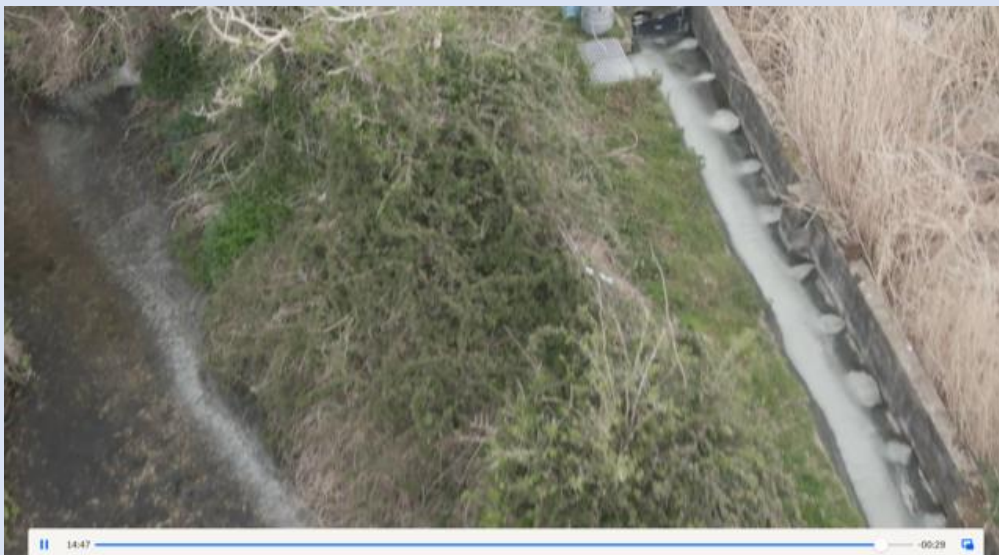
This is not insignificant. Court papers relating to Southern Water's £90m criminal conviction (the largest ever bought by the Environment Agency) itemised just over 700 illegal discharges into Langstone and Chichester Harbours between 2010-16.

In addition, Professor Hammond's data study also found 147 unpermitted discharges from the Lavant wwtw into the River Lavant – a rare and ecologically sensitive winterbourne chalk stream which flows into Chichester Harbour at Apuldram. According to Southern Water's own data, so called "exceptional" discharges from "storms" lasted for over 6 months in both 2020 and 2021.

Watch Out for BBC Coverage

As a result, CHP included the location in its recent sampling regime with test sites both above and below the Lavant wwtw. Here, we found physical evidence of prolonged pollution.

The aerial photo below shows overflow (untreated wastewater) coming out of a reed bed (right) on site and creating a white plume as it travels down the river (left). The [short video was taken from the river, showing the white substance up close](#) which we believe to be bacterial colonies (sewage fungus). E-coli and streptococci analysis undertaken by CHP showed levels 30x higher than the Environment Agency's "poor" standard at Blue Flag beaches. CHP has reported this incident to the Environment Agency and given media interest, we hope they will follow through to a full investigation.



Overflow coming out of reed bed



[Close-up of white substance believed to be sewage fungus](#)

This interested **BBC national news**, so the situation has been filmed and is expected to be aired on BBC Breakfast (7m viewers) and Radio4 Today (3m listeners) next week. Thank you to the samplers and Alex for giving up more time to be filmed, as well as to ESC for hosting the BBC.



BBC filming Professor Alex Ford at Lavant



Junior Members at ESC being filmed by the BBC team

Poor Water Quality continues to make news

- **Local** - two species of Vibrio E-coli have been found by Exeter University in UK waters for the first time – in Chichester Harbour. Vibrio parahaemolyticus is the world's leading cause of seafood gastroenteritis and was discovered in our local oysters. Rising sea temperatures has been blamed. [Link to research.](#)
- **National** - data provided by water companies in March identified some 372,000 raw sewage discharges into our rivers during 2021 – just over 1,000 per day. [Link to article.](#)
- **Government** - DEFRA has announced plans to cut stormwater discharges 40% by 2040. Their proposals have received wide spread condemnation for lack of ambition but if anyone would like to review their proposals and make comment please use [this link](#). The consultation period closes 12th May.

Funding and pledge payment

We are delighted to report that Project Spotlight is now **fully funded**. Additional pledges from Friends of Chichester Harbour and The Fat Face Foundation means we have reached the £25,000 target. Agreement on the structure of payments to Portsmouth and Brunel Universities has been agreed and now that lab work is to commence, we will be asking for direct payments to be made this month.

Supporters to date include:

- | | |
|-----------------------------------|---------------------------------------|
| • Bosham Association | • Dell Quay SC |
| • Chichester Yacht Club | • Bosham Swimmers |
| • Bosham SC | • Itchenor SC |
| • Emsworth Yacht Harbour | • Emsworth Residents Association |
| • Emsworth Slipper SC | • Langstone SC |
| • SOSCA | • Langstone residents & Village Assoc |
| • Locks SC | • Andrew Simpson Centre |
| • Emsworth SC | • Hayling Health Society |
| • Portsmouth Canoe Club | • Hayling Residents Assoc |
| • Friends of Langstone Harbour | • Friends of Chichester Harbour |
| • Hayling Ferry SC | • Thorney Island SC |
| • Fat Face Foundation | • Hayling Island SC |
| • ...plus a number of individuals | |

A massive thank you to all those who have pledged to date.

Next Steps

Investigate - We continue to pray for heavy rain (sorry) and will be finalizing logistics so that Phase 4 & 5 of the testing can complete. Please note that if this unseasonal dry period continues, lab analysis and therefore results may have to be delayed.

Inform - We look forward to BBC coverage next week and have been approached by a couple of production companies who are planning to make a documentary on the sewage issue nationally.

Improve - We expect the BBC piece to make some waves and will be putting pressure on the Environment Agency to respond to the evidence unearthed by Professor Hammond and on site at Lavant.