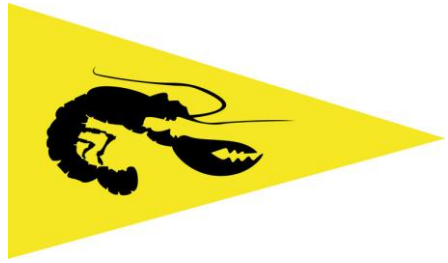


Warsash Sailing Club Environment Action Group

Presentation by
Stuart Henderson
for the
Hamble Estuary Partnership
7th July 2026

The Mission – Dec 24

"Our mission is to lead the way in promoting sustainable sailing practices, reducing the club's carbon footprint, and protecting marine ecosystems.

We strive to inspire environmental stewardship within our sailing community and beyond.

Through education, action, and advocacy, we are committed to minimising our ecological footprint, reducing recreational disturbance and preserving the beauty and health of our local environment for future generations."

…with assistance from …

- Harbour environment officer
- The RYA Environment and ‘The Green Blue’ team
- Hampshire and IoW Wildlife Trust
- Southern Water
- The Environment Agency – SSD Marine Team
- The Final Straw Foundation
- North Face
- Solent Seascape Project
- Blue Marine Foundation
- CEFAS

Current EAG Initiatives

- ‘Keen to be Green’ monthly newsletter and meetings
- Reducing energy use - more insulation, good practices and adopting renewal energy sources only
- Reducing water use - installing water butts
- Re-use – pre-loved sailing gear and annual boat jumble
- Recycling - cans for charity, wetsuits, sails & food
- Bio-diversity - Intertidal surveys with the Wildlife Trust, organic gardening
- Environmentally friendly anti-fouling practices
- Eco-friendly cleaning products projects
- Beach cleans with North Sails
- RYA ‘The Green Blue’ pledge
- Water quality citizen science

Water Quality Project

Aim: an effective health risk assessment for WSC members

- Understanding the risk – its complicated! Little or no previous data.
- Raise awareness about risk and health precautions
- Consider Bathing Water area designation for Kipper Pond
- Support action to understand and act on all causes of pollution
- Support actions to clean and up and improve water quality such as oysters and sea grass.
- Are there any illegal discharges?
- Independent water quality testing to Bathing Water standards
- Pipe dream: Pollution Risk Forecasting akin to designated Bathing Water areas

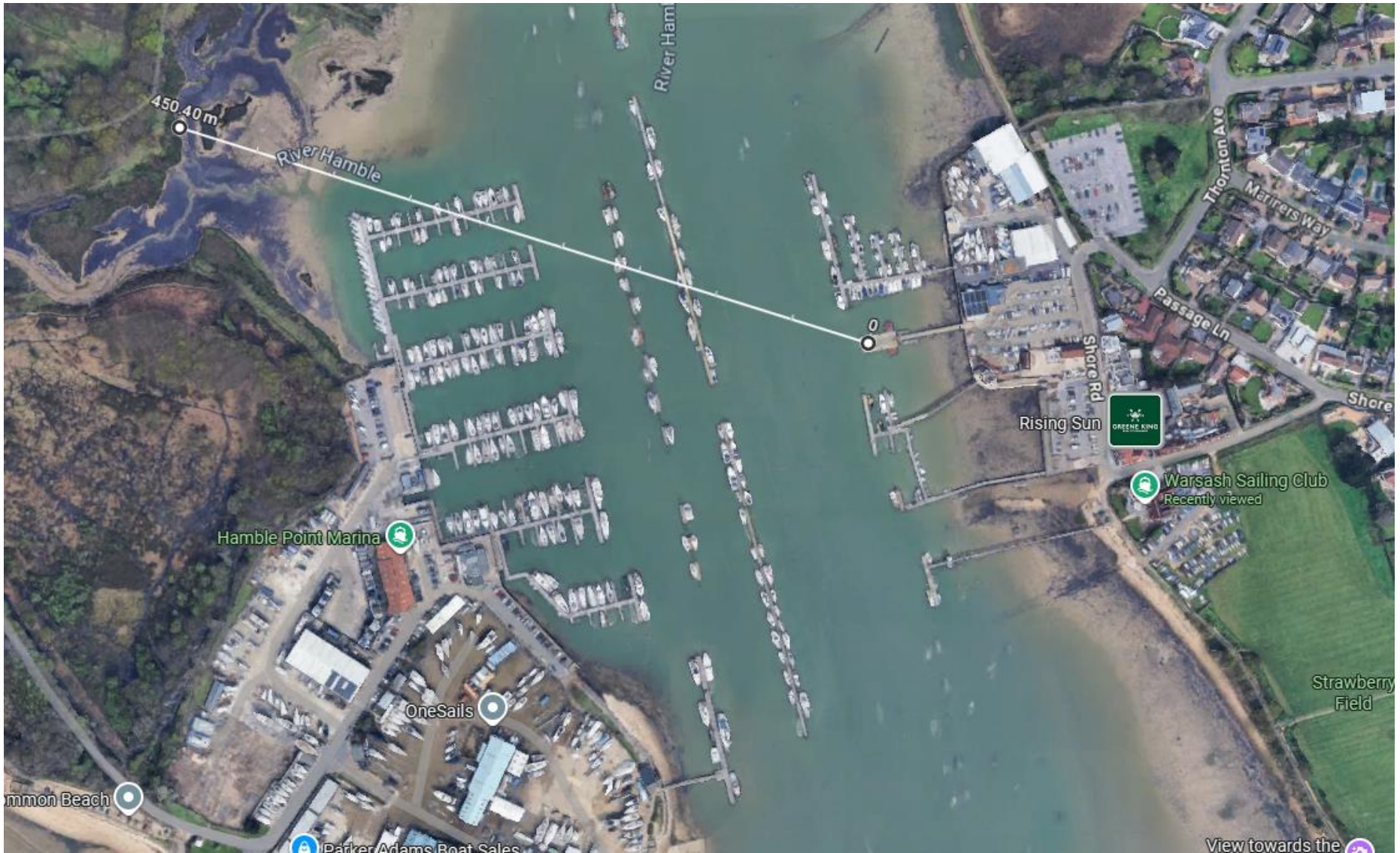
Ignorance is bliss?

- Ignorance doesn’t change the risk, which exists in any case, just your awareness of it.
- Knowledge gives you agency
- Most people are more worried about uncertainty – once you know you can plan and this gives peace

If the risk is…	**Best approach**
High impact + actionable	Definitely know about it
High impact + not actionable	Know, but limit exposure
Low impact + not actionable	Ignorance is often fine
Low impact + actionable	Decide based on personal tolerance

Meaningful: Would the consequences genuinely affect my life?
Actionable: Can I do something useful with the information?

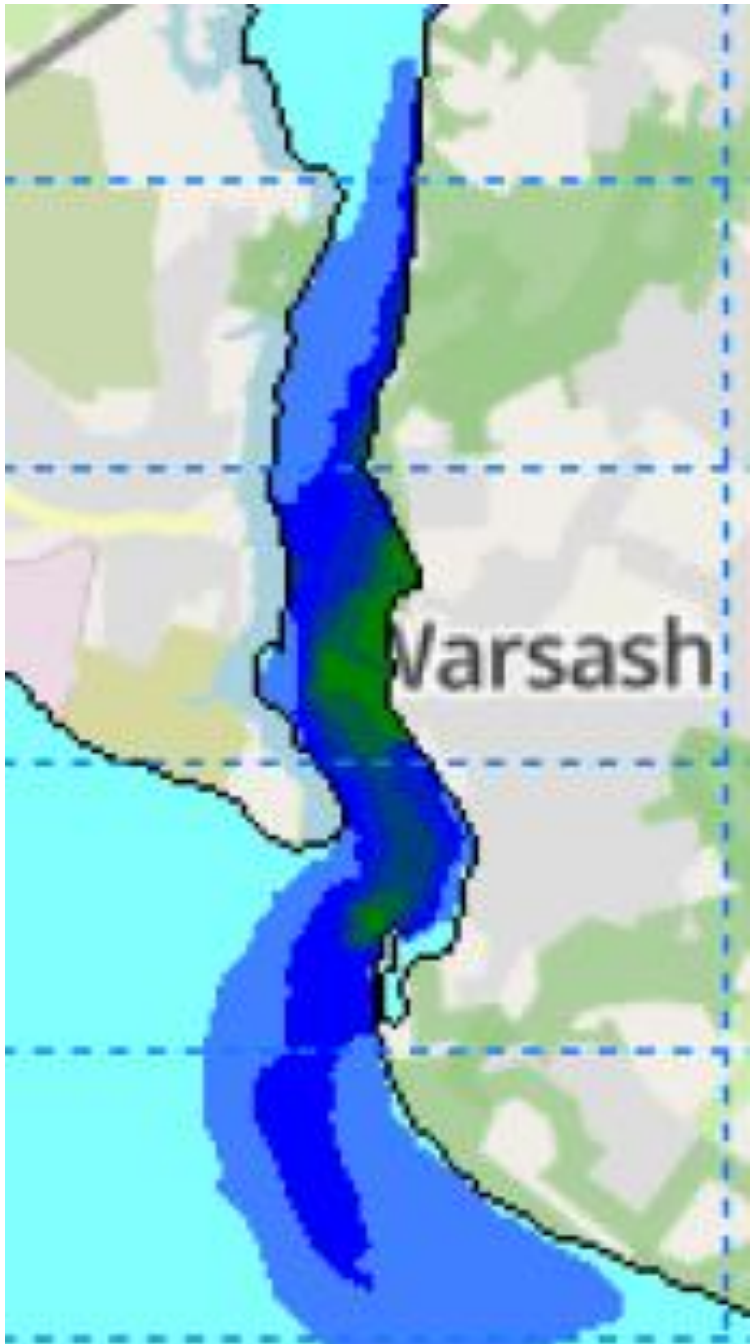
Hamble Combined Emergency Outflow

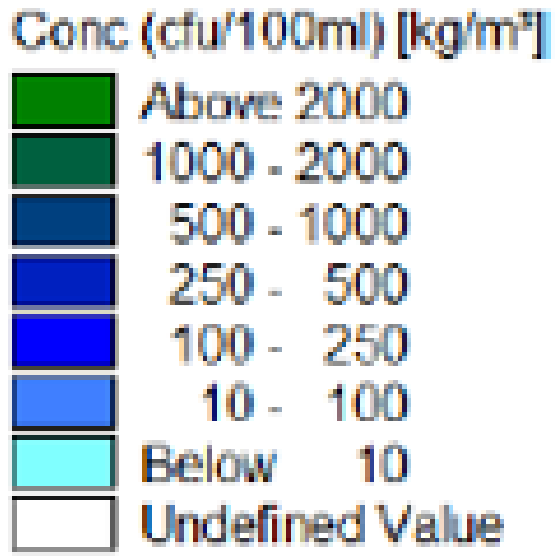


Southern Water Modelling of hypothetical discharge from Hamble Lane CEO

Coastal Bathing Waters	
Excellent	EC: ≤250 cfu/100ml; IE: ≤100 cfu/100ml (**95th** percentile)
Good	EC: ≤500 cfu/100ml; IE: ≤200 cfu/100ml (**95th** percentile)
Sufficient	EC: ≤500 cfu/100ml; IE: ≤185 cfu/100ml (**90th** percentile)
Poor	Sufficient standard not met

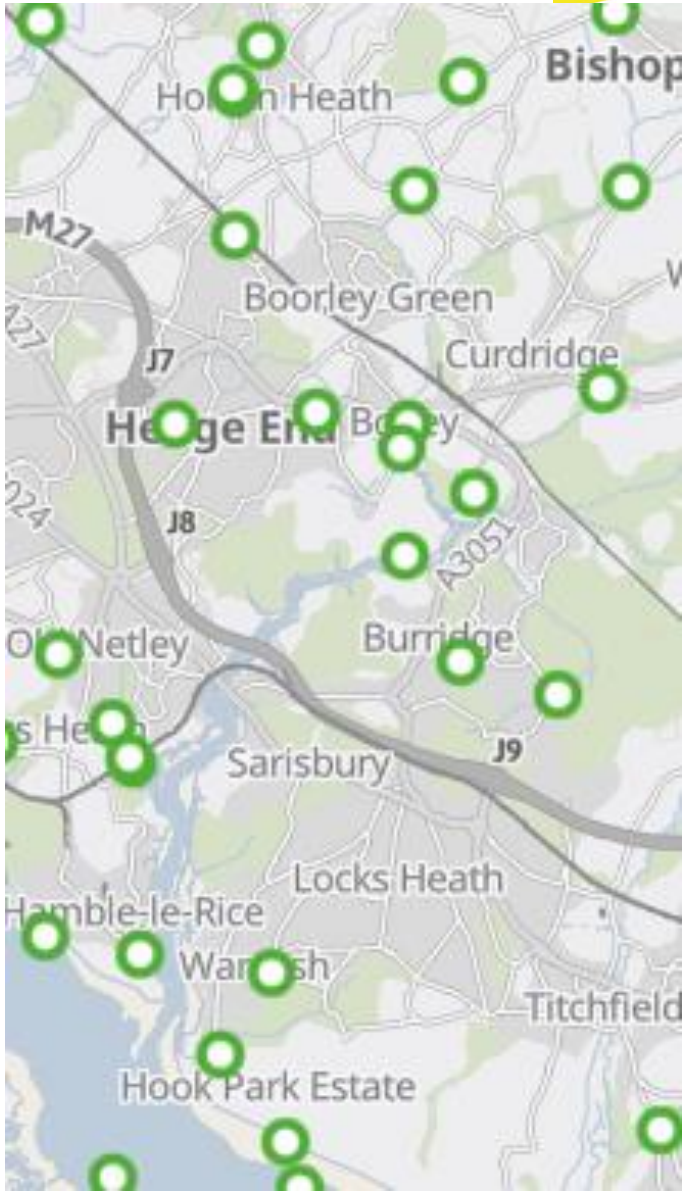
Southern Water Modelling of hypothetical discharge from Hamble Lane CEO





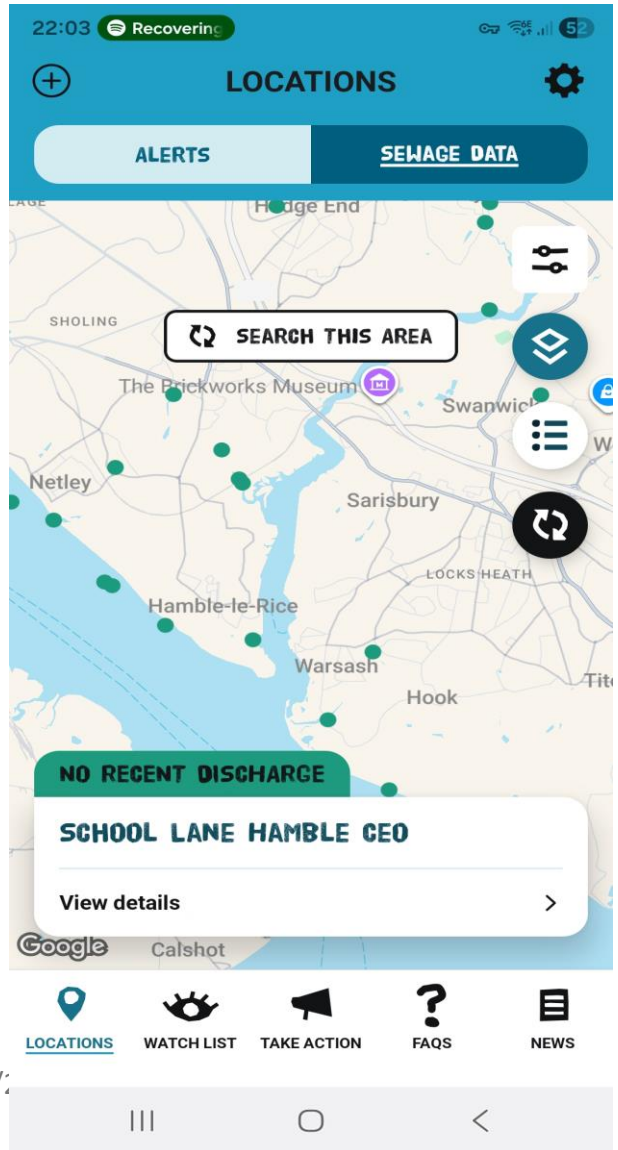
Southern Water Rivers and Seas Watch

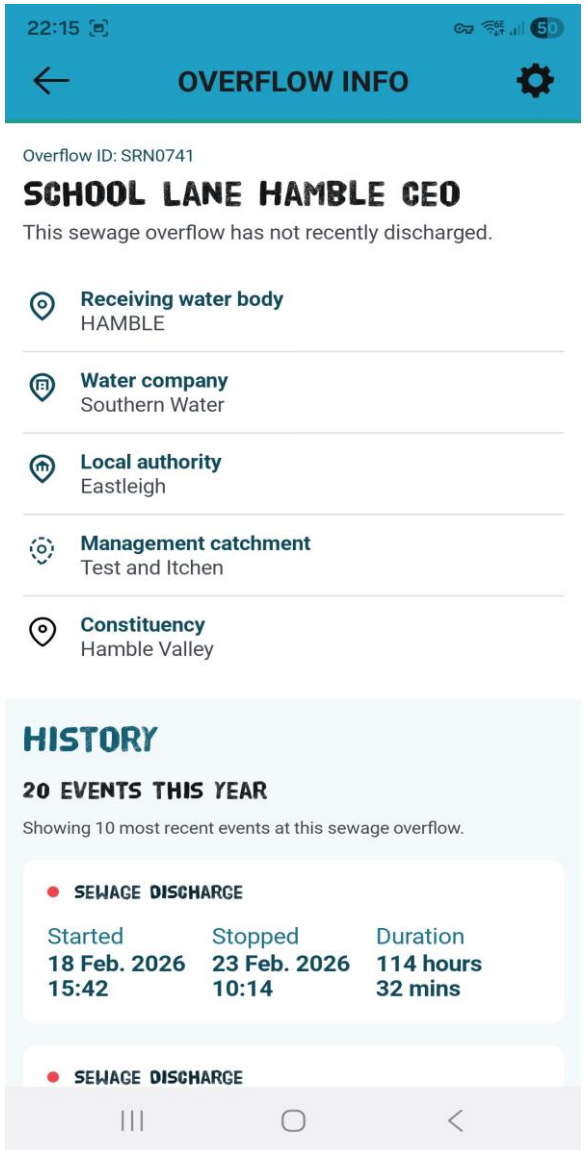
- 19 x Combined Emergency Outflows into the River Hamble
- In 2025 top discharges were from:
  - Heathen Lane, Durley
  - Hamble Lane Pumping Station, Bursledon and
  - Bishop's Waltham Waste Water Treatment Works
- In 2026 Bishop's Waltham WWTW has only discharged for 23 minutes



Source: https://riversandseaswatch.southernwater.co.uk/

Safer Seas & Rivers App





A GUIDE TO USING THE BACTIQUICK DEVICE

LEARN HOW TO TEST WATER QUALITY IN JUST 15 MINUTES

See how to test for clean water in just 15 minutes

Bactiquick

- Uses an enzyme to detect gram-negative bacteria: including E-coli, Cyanobacteria, Pseudomonas and Salmonella

Source: https://bactiquick.com/pages/how-it-works

HOW TO TEST WATER QUALITY WITH BACTIQUICK

Water quality testing with Bactiquick is simple yet effective, and backed by science.

During testing, a water sample is combined with a cutting-edge chemical solution developed exclusively for Bactiquick. The water testing device then heats the sample to 37°C for 13 minutes. During this time, the device detects Gram-negative bacteria through a colour-change reaction. The colour produced is converted into an electrical signal - the more colour produced, the higher the concentration of bacteria in the water, and the greater the risk to your health.

The results of the water quality test are displayed with a simple traffic light system:

GREEN: Low levels of bacteria – low risk

ORANGE: Moderate concentration of bacteria – medium risk

RED: High concentration of bacteria – high risk

These align with the Environment Agency's bathing water classifications. Read more about how we classify the risk levels in our FAQs.

FLUIDION ALERT-ONE USED TO INFORM THE UNIVERSITY BOAT RACE ORGANISERS

APRIL 2, 2024 | IN GENERAL | BY DAN LEVETT

The New Alert-One portable E.Coli system from Fluidion has been used by the Rivers Action Group to monitor the river Thames in advance of the forthcoming annual university boat race between Oxford and Cambridge on the Thames in London.

Their monitoring over several days showed average E.Coli levels of 2,869 E coli colony forming units (CFU) per 100ml of water in 16 tests around Hammersmith Bridge, which is just short of halfway along the 4.25-mile Boat Race course.

The tradition of the winners jumping into the river will probably not be a great idea this year.

The report in the Guardian Newspaper tells the whole story here.

Sources:
https://www.oceanbusiness.com/general/fluidion-alert-one-used-to-inform-the-university-boat-race-organisers/

https://datahq.sas.org.uk/toolkit/citizen-science-data-hq-guide/

SURFERS AGAINST SEWAGE
CITIZEN SCIENCE

FLUIDION

Fluidion ALERT one provides rapid, portable water quality testing of E. coli levels in water samples.

The 'first handheld microbiology lab for rapid E.coli quantification', it's designed to be used by anyone, with minimal training required. Samples are fast, providing accurate bacteria counts in as little as 2 hours, autonomous and extremely portable.

It detects E.Coli specifically, rather than more general indicators of pollution such as endotoxins – but is a more expensive piece of equipment.

HOW DOES IT WORK?

It automatically mixes reagents, incubates the sample and quantifies bacteria using optical detection, giving results in about 2 hours.

Optical detection: As the bacteria grow, they produce specific chemicals that change the way light passes through or reflects off the sample. The device shines light on the sample and measures these changes.

Health Precautions

BEFORE

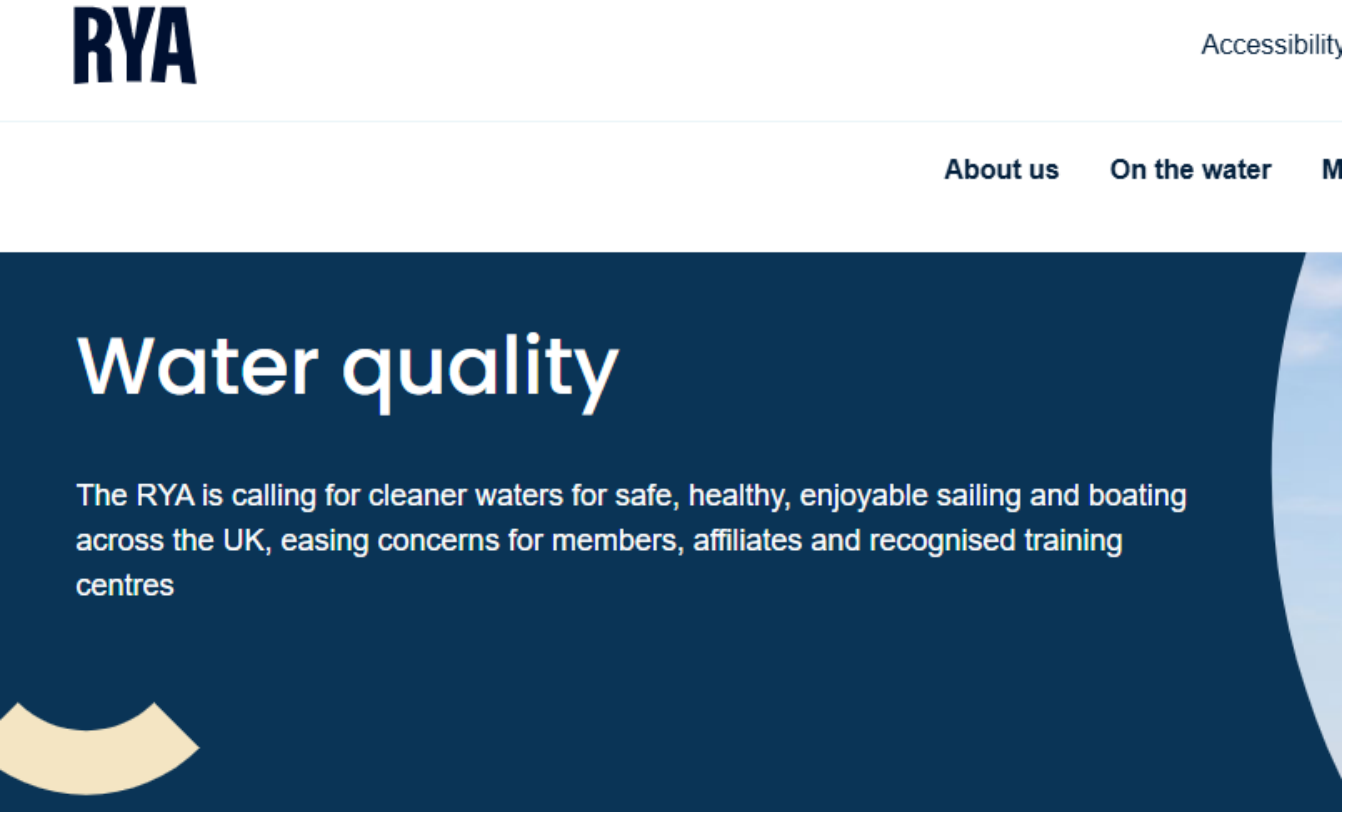
- Cover cuts and scrapes with a fully waterproof bandage
- Skip sailing if you have a bug or infection

DURING: Try and avoid swallowing the water or putting your head under

AFTER

- Wash hands with soap before eating
- Shower thoroughly with soap soon, especially any cuts or scrapes
- Wash all gear with soap or disinfectant
- If you get sick or an infection within 1-3 days contact the NHS immediately and tell them about the open water
- If you get sick fill out an accident form from the website (The club/reporting) or scan...

Source: https://www.gov.uk/government/publications/swim-healthy-leaflet/swim-healthy#health-risks



- Key member of the Clean Water Sports Alliance
- Influence reform of the Clean Water Bill to allow designation for recreational water users
- Further and faster action on pollution, Improving the health of UK waters by 2030
- Encouraging water quality testing by sailing clubs
- There is a Water Quality Incident Reporting Form on the RYA's webpage
- Currently reviewing guidance and procedures with CWSA

Bathing Water Quality

On this page: Classifications | Water Quality Assessments | Abnormal Situations | Pollution Risk Forecasting | Short term pollution

Classifications

The Environment Agency takes up to twenty water samples at each of England's designated bathing waters during the bathing water season between May and September each year. A classification for each bathing water is calculated annually based on samples from the previous four years. These classifications are:

- Excellent – the highest, cleanest water quality
- Good – generally good water quality
- Sufficient – the water meets the minimum standard
- Poor – the water has not met the minimum standard. Work to improve quality at Poor sites are detailed in the site's profile.

If a bathing water is classified as Poor, then a sign advising against bathing will be displayed. However, the beach remains open for people to enjoy.

The use of standardised symbols for the four classes helps people make informed choices on where to swim.

A sample tells us the quality of the water at that specific time, but water can change even over the course of one day. In each sample we test for bacteria that indicate whether there is faecal matter in the water. These bacteria are known as faecal indicator organisms or FIOs and the specific ones that we test for are:

- Escherichia coli or E. coli (EC)
- Intestinal enterococci (IE)

These bacteria can come from many sources including sewage, agricultural livestock, wildlife, birds and road drainage.

Source: https://environment.data.gov.uk/bwq/profiles/help-understanding-data.html

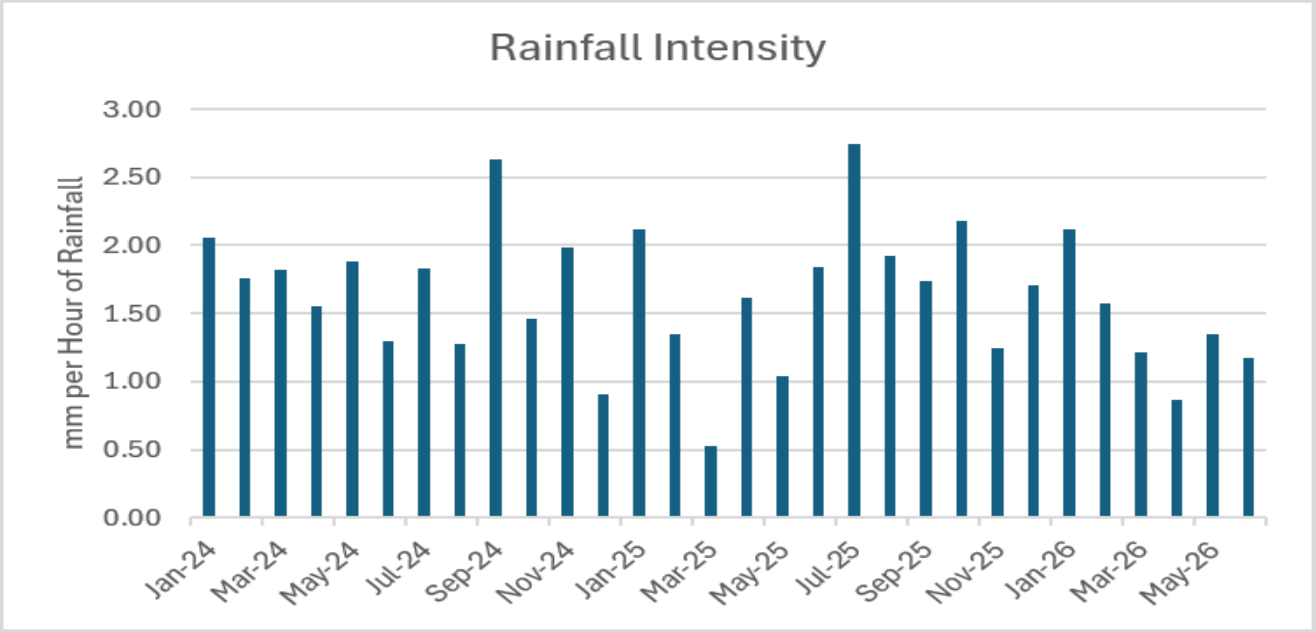
Pollution Risk Forecasting

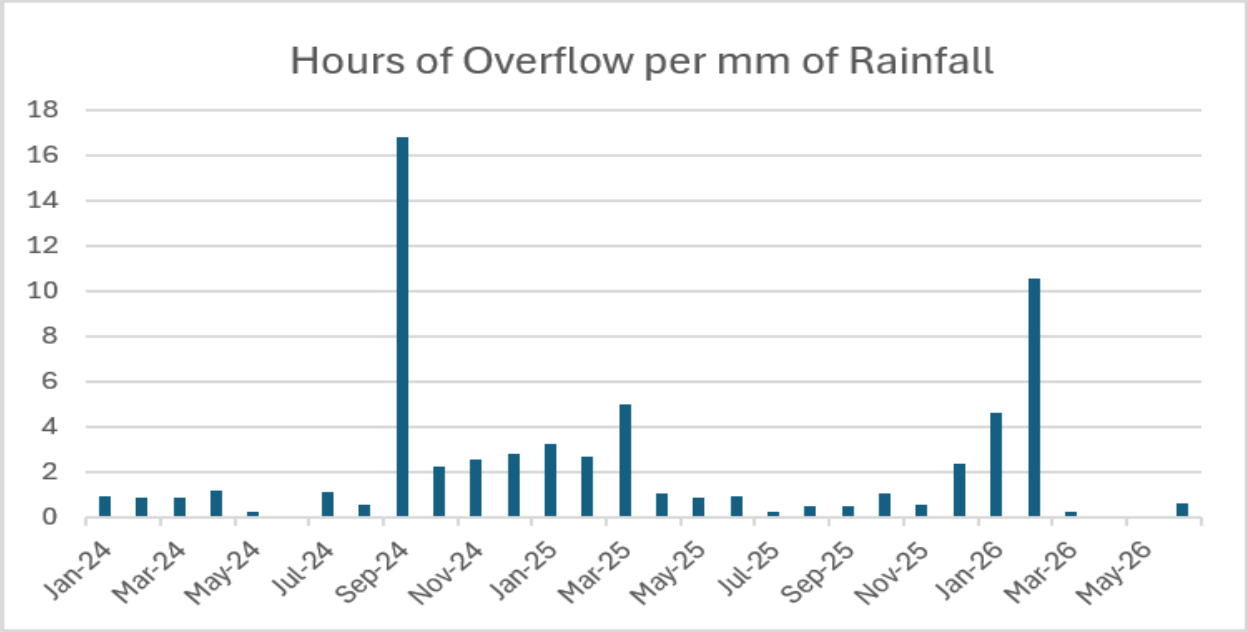
- Used by the EA for Designated Bathing Water areas during the bathing water season
- Factors:

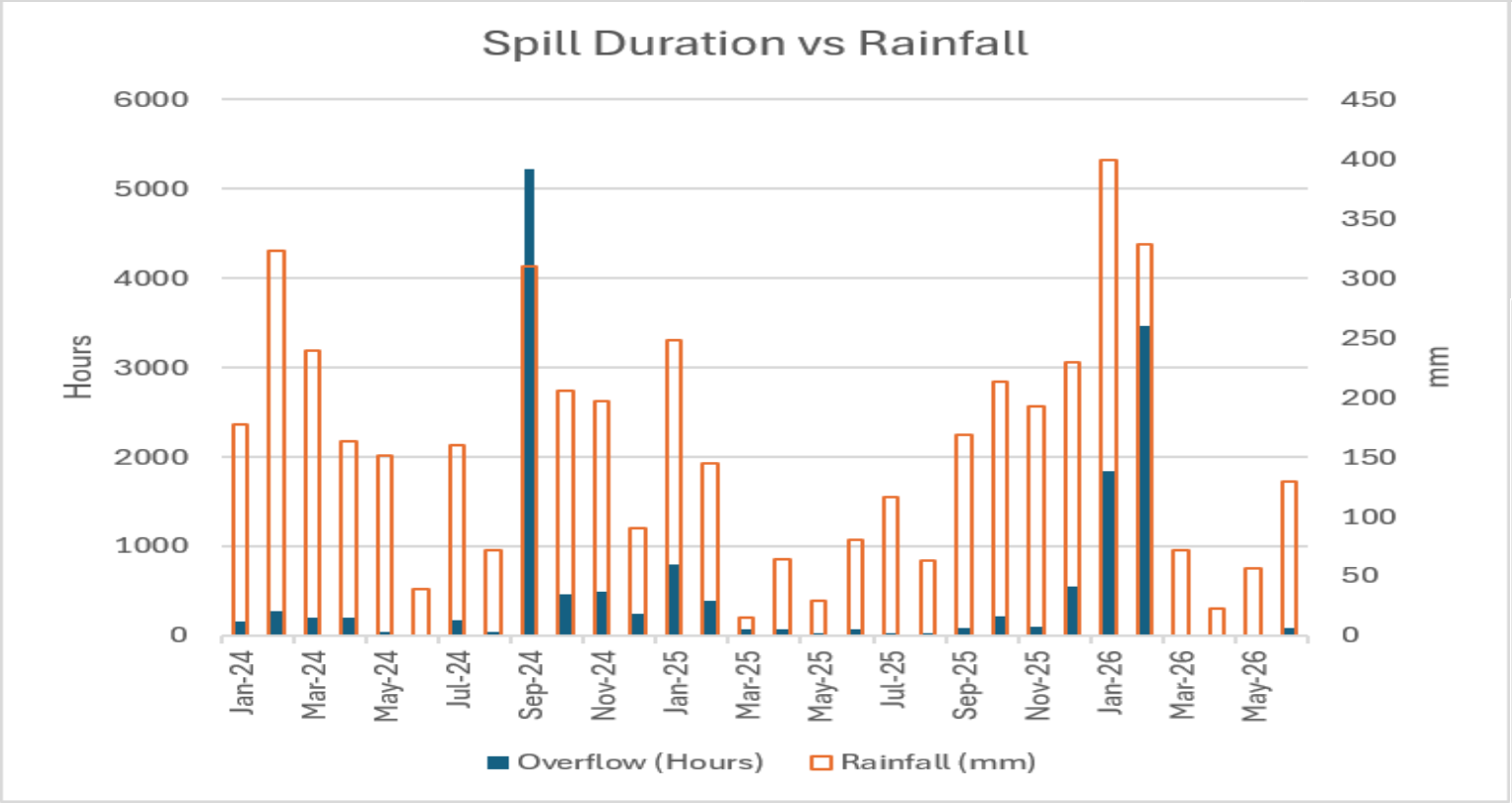
- Rainfall - this washes FIOs from the land into a river or stream that then flows into a bathing water. The amount and intensity of rainfall are important predictive factors used for PRF along with how long it takes the FIOs from the land to arrive at a bathing water.
- Tides - move any FIOs, entering the sea both from rivers or streams, both towards and away from bathing waters twice a day.
- Wind - can blow and move any FIOs at the surface of the water but also disturb FIOs stored in beach sediment through wave action.
- Sunlight - kills FIOs in the water through ultraviolet rays. So bright days increase this effect, but cloud and silt in the water can prevent this.
- Seasonality is an important factor in predicting the number of FIOs in the water. The reasons behind this may include day length, water temperature, number of bathers in the water and changes in use of the sewerage infrastructure.

- EA Pollution Risk Forecasting primarily uses rain: not sewage discharges
- If a Short Term Warning (<72 hours) is in place then any testing is disregarded for classification purposes.

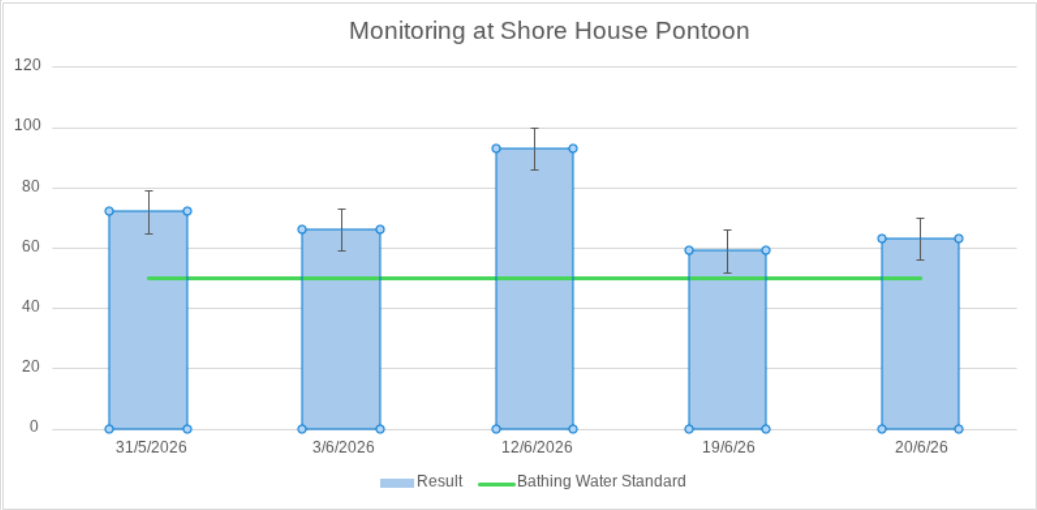
Source: https://environment.data.gov.uk/bwq/profiles/help-understanding-data.html







Unverified citizen science analysis using Southern Water and Government Data Sets



Questions?

‘trying to understand and manage the risk,

and on a learning journey’