



River Ouse Earthwatch Waterblitz April 2025
Results and Analysis – 15th June 2025

About us

Vision: *Our vision is a community connected with and caring for a thriving River Ouse*

Mission: *We enable local communities to **celebrate**, **learn** and **act** to champion the Charter of Rights for the River Ouse*

- Charter launch, developing support and implementation
- Creative, cultural and heritage activities
- Ecological based study and interventions



"People protect what they love, they love what they understand and they understand what they are taught."

- Jacques-Yves Cousteau



Recent Projects



Love our Ouse presents

WINTERBOURNE FESTIVAL

A series of community events to celebrate, learn and act for the globally rare chalk stream that runs through Lewes

1st - 9th March 2025

Evening Walk by Michelle Hockey



Full programme



www.loveourouse.org

Some of our partners:



Chalk & Stream



Supported by:



Changing Chalk
connecting nature, people and heritage



Supported by



River Ouse Charter

The right to exist in its natural state

The right to flow

The right to perform essential natural functions within the river catchment

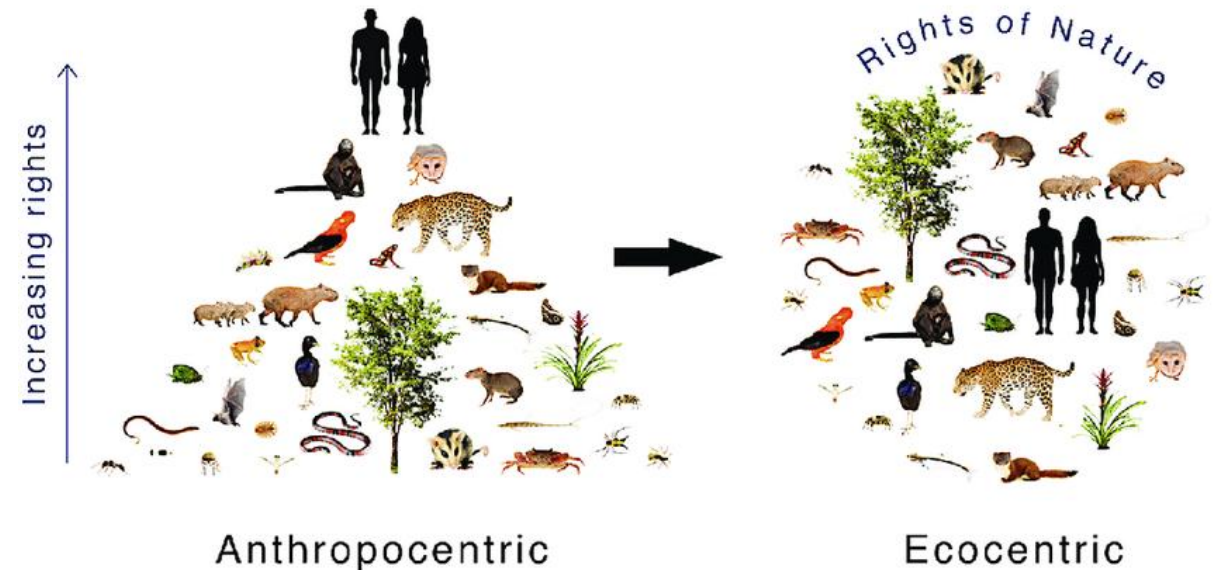
The right to feed and be fed from sustainable aquifers

The right to be free from pollution

The right to native biodiversity

The right to regeneration and restoration

The right to an active and influential voice



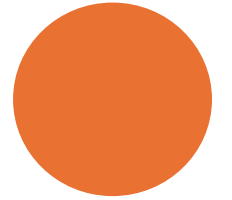
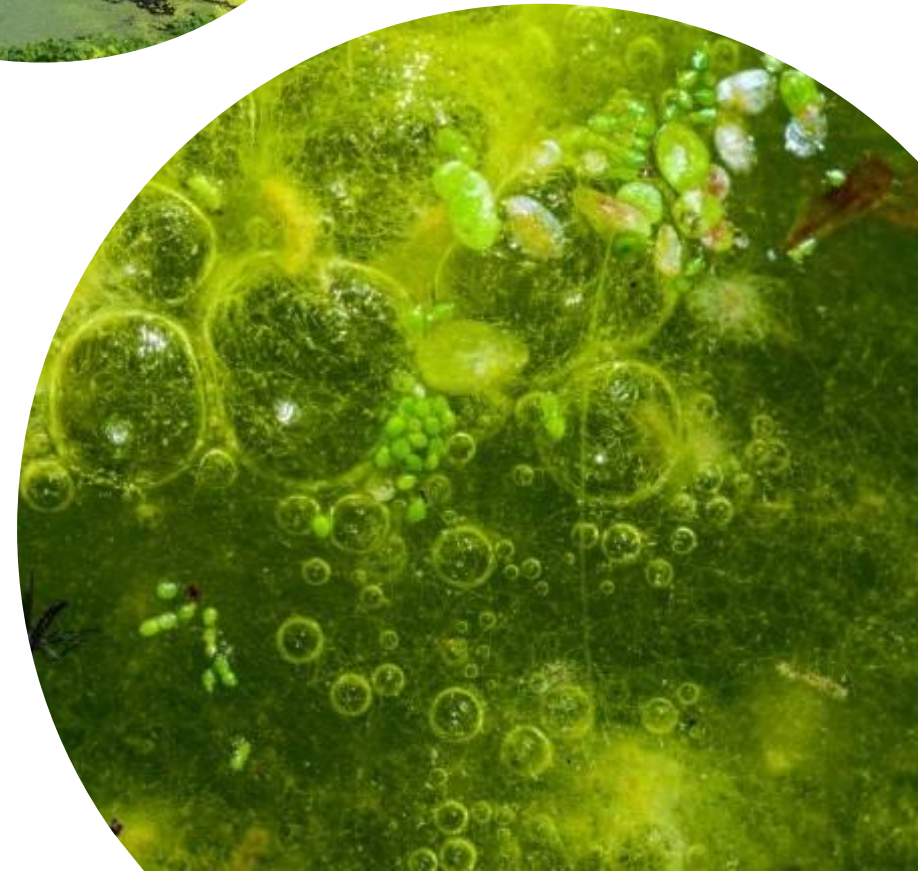
Earthwatch Waterblitz

- National freshwater monitoring event
 - Snapshot in time
 - Phosphate & Nitrate
- **4017** total samples collected across the UK
- **7978** total participants
- **66%** of samples showed **poor water quality**
- Ouse best represented in Sussex! High number of samples compared to other catchments!
 - Approx 75 samples
 - LOO and others!



Why test for Nitrates & Phosphate?

- Occur naturally in the environment – important for plant growth... BUT in high concentrations increase EUTROPHICATION and algal growth
 - Reduces oxygen levels in the water
 - Reduces light for aquatic plants
 - Implications for human health and drinking water quality



NITRATES

Largely from agriculture,
particularly fertilizers and manure.
Secondary sources include
sewage treatment / urban
wastewater



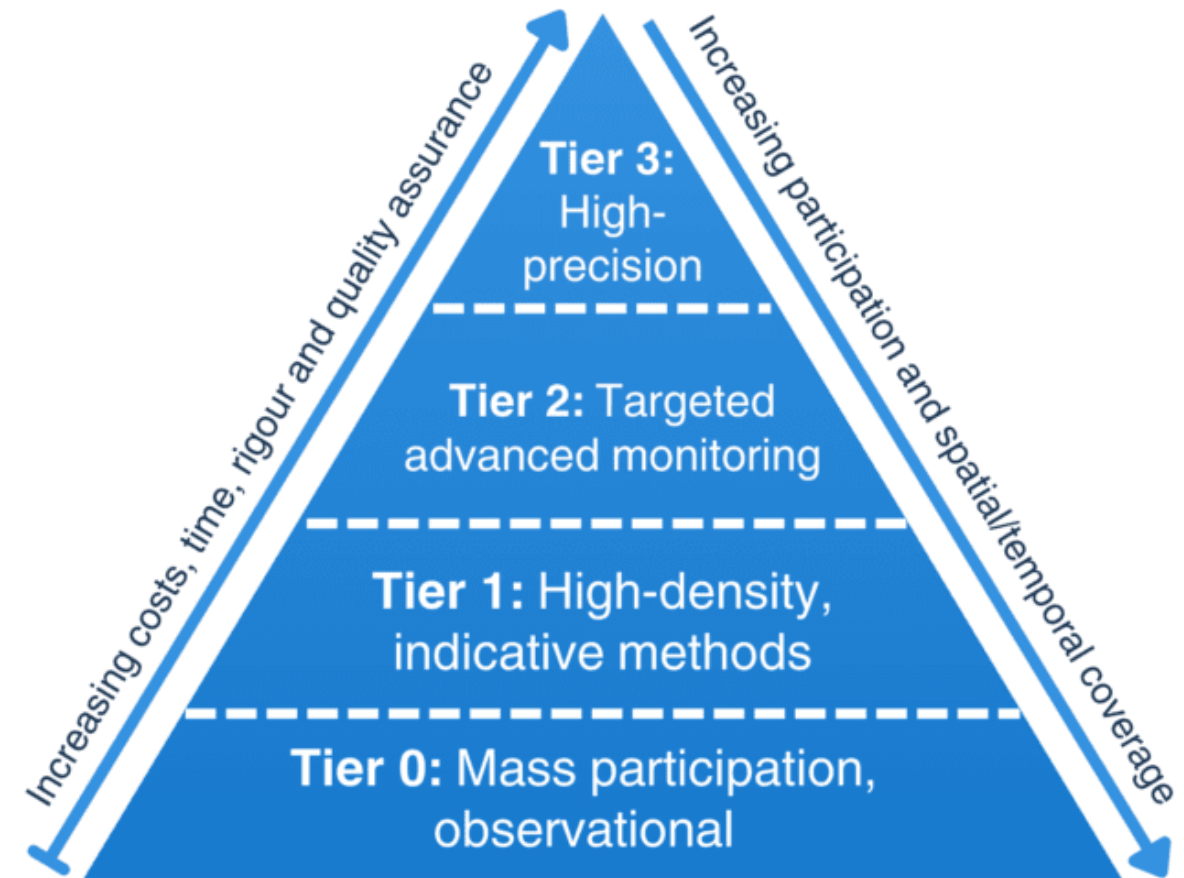
PHOSPHATES

Predominantly from sewage treatment,
including treatment works and septic
tanks.
Secondary source from agriculture



Water Quality Monitoring

- Monitoring
 - Environment Agency – Regulator rivers and water quality. Monthly monitoring. Open data
 - Water Framework Directive
 - Pollution reporting
 - Water Quantity and flow gauging
 - Water companies – drinking water and water quality. Extensive monitoring for parameter related to Water Regulations. Needs FOI
- Citizen Science – importance and need for more data

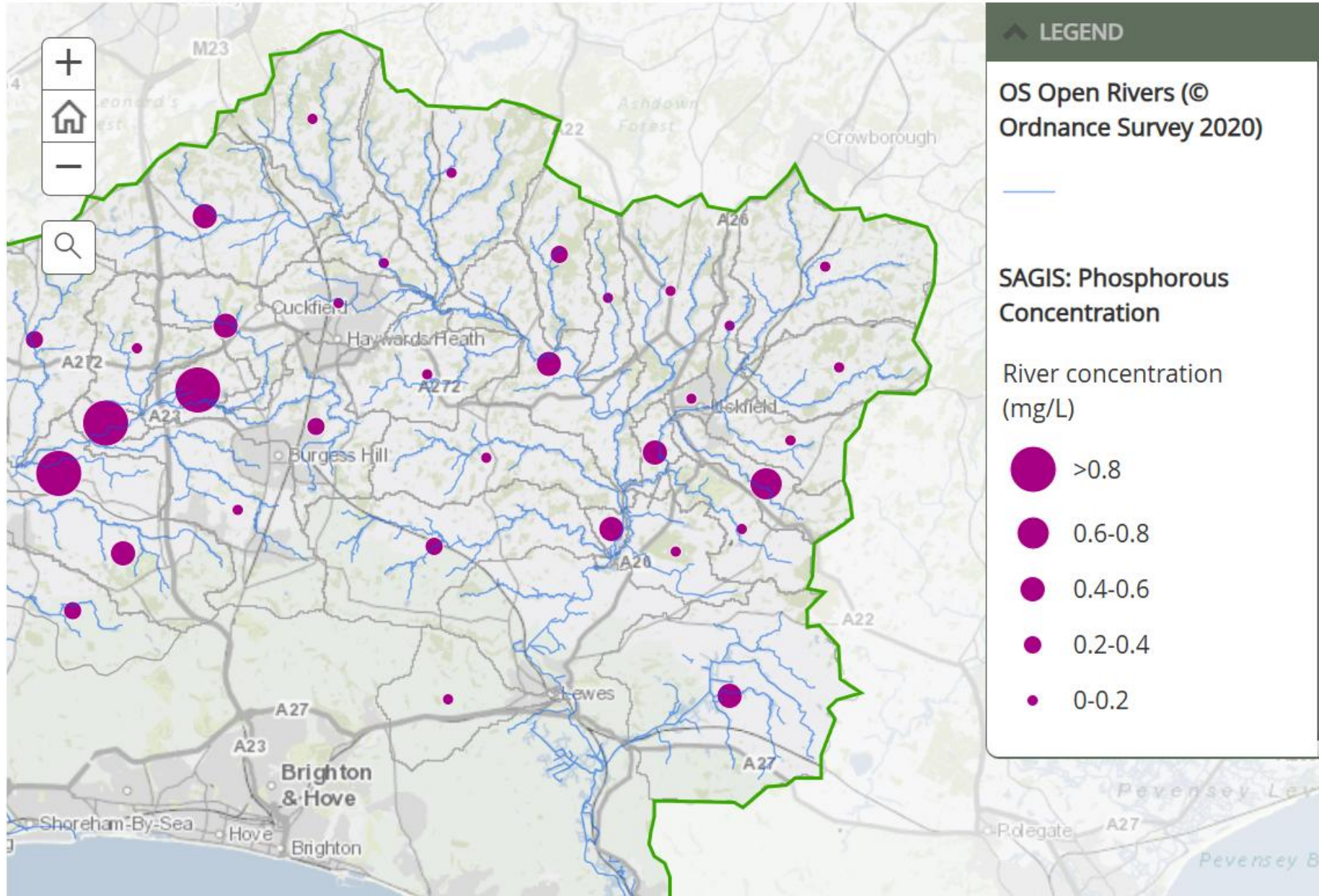


Citizen Science – Local is vital!

- Knowing your local river stretch
- Spotting issues or changes
- Providing important supporting data
- Driving ACTION
- Flagging issues rapidly



Adur & Ouse Catchment Partnership



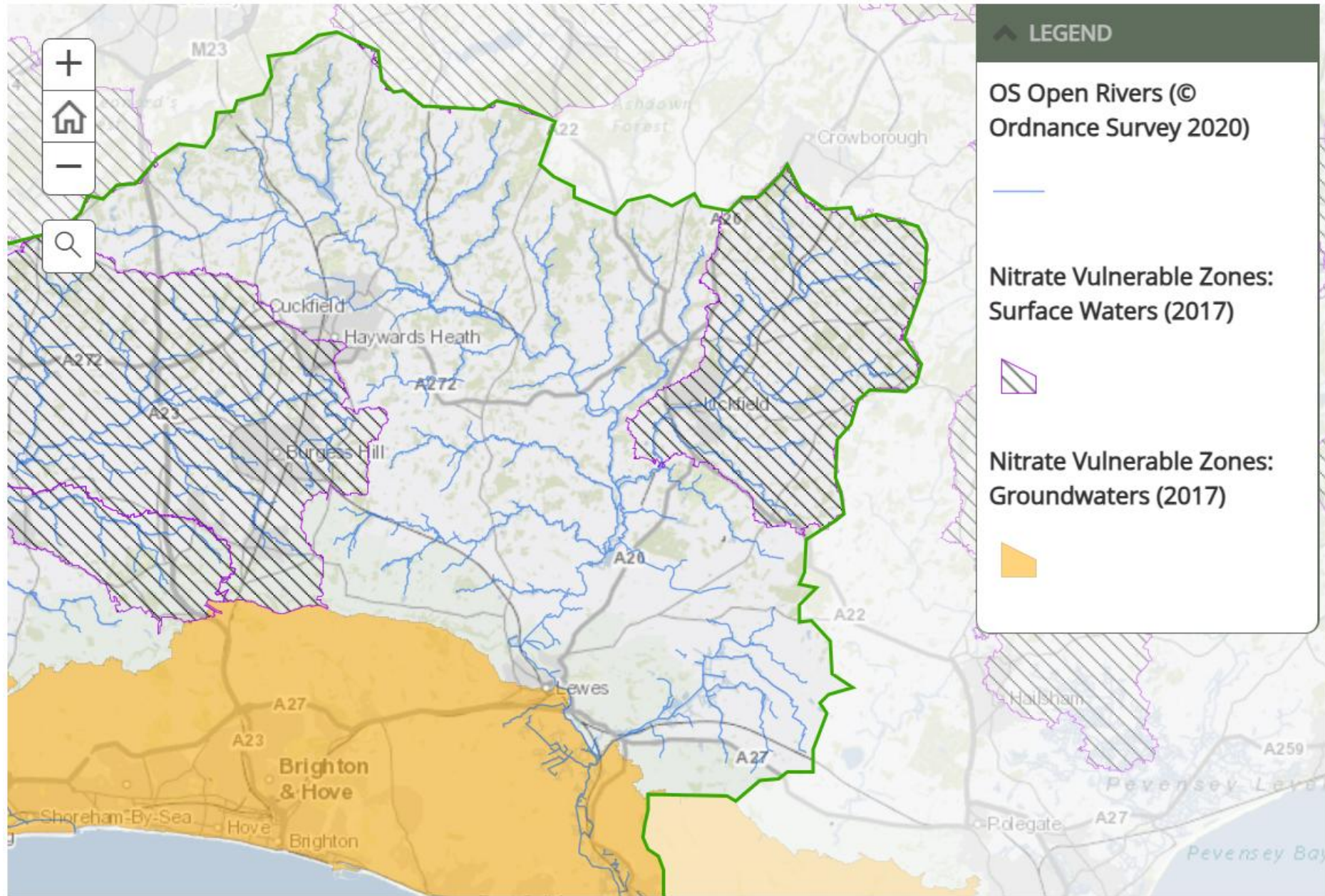
Phosphates

- Model which combines land use, wastewater treatment, septic tanks, agricultural run off etc, to highlight potential sources of phosphorus

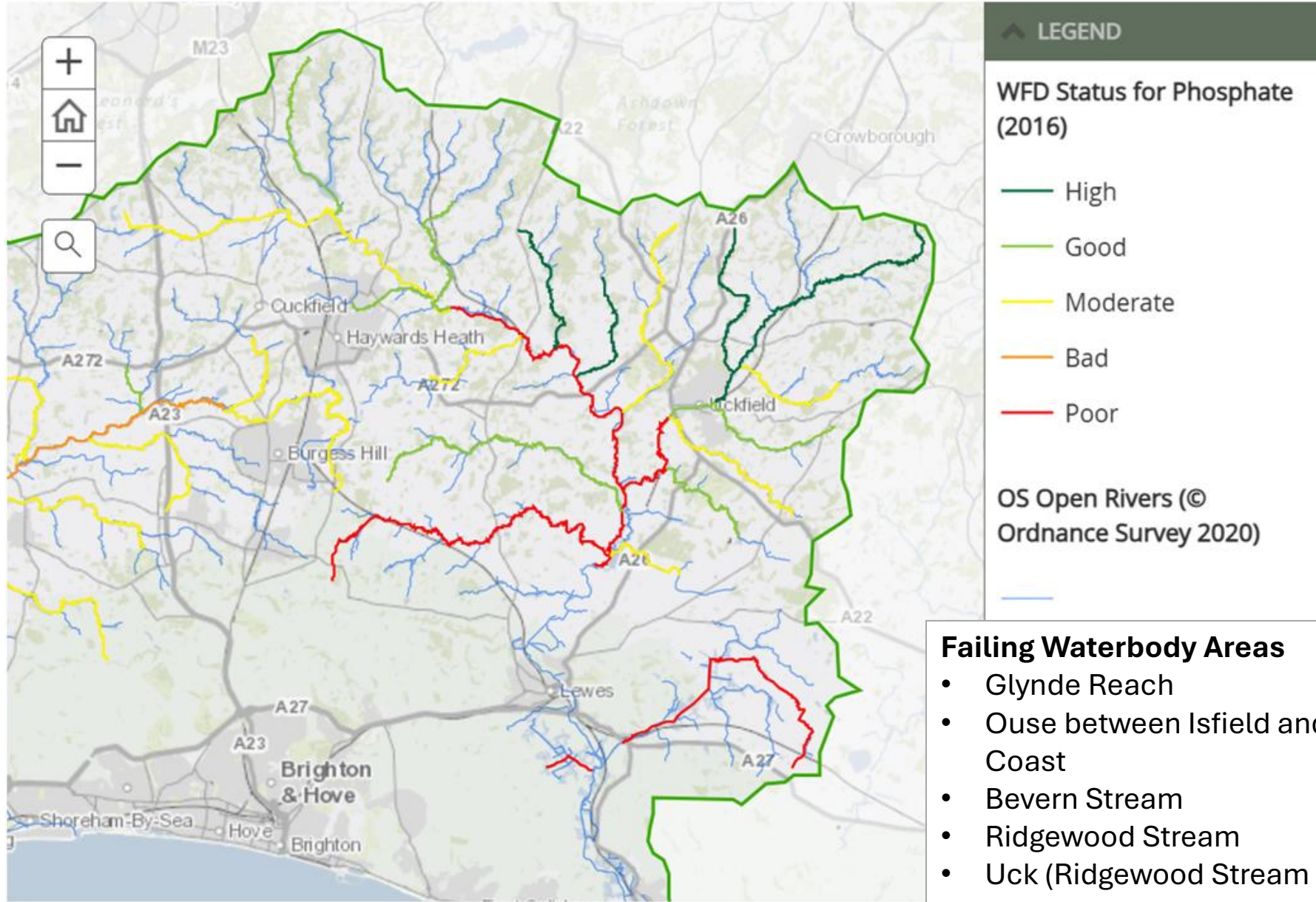
Nitrates

- IDs places where nitrates need to be controlled
- Places where nitrates could impact groundwater (and drinking water sources)

Adur & Ouse Catchment Partnership



Adur & Ouse Catchment Partnership



Water Framework Directive – status related to Phosphate levels.

10 waterbodies – remain unchanged since 2016!

Failing Waterbody Areas

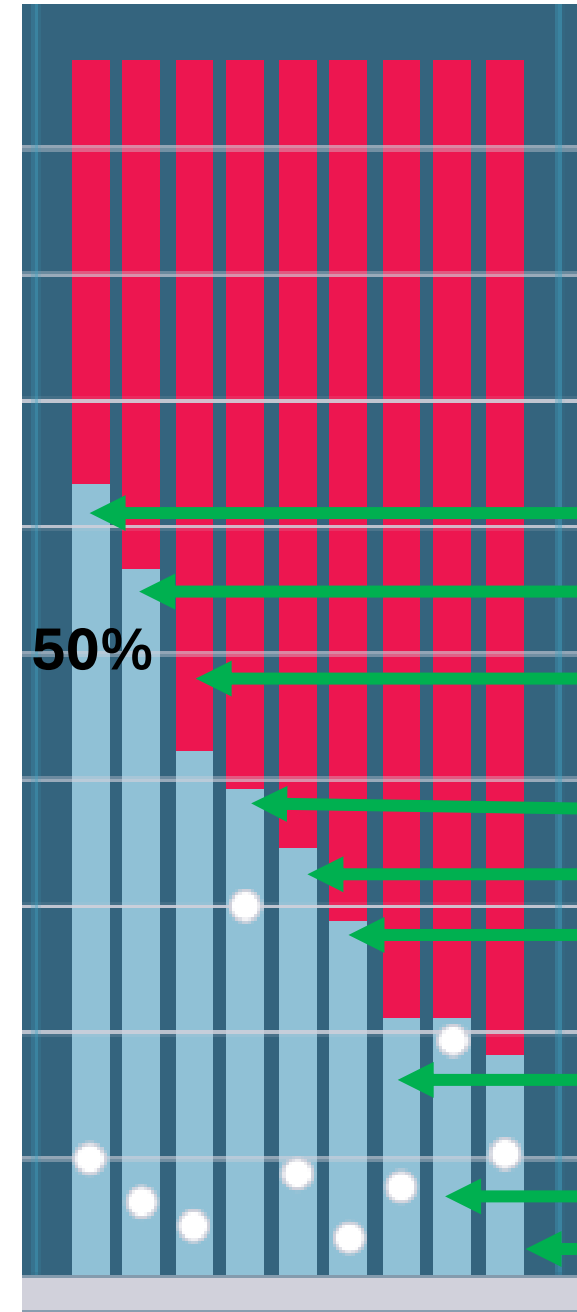
- Glynde Reach
- Ouse between Isfield and Coast
- Bevern Stream
- Ridgewood Stream
- Uck (Ridgewood Stream to Ishurst)
- Pellingford Brook
- Middle Ouse
- Tickerage Stream
- Uck Upstream of Buxted
- Iford Marshes

The Ouse Earthwatch Waterblitz Results

- More than 70 samples taken across the Ouse – highest in Sussex and South east region!
- Higher concentration of nitrates than phosphates
- Testing regime – timing and tests

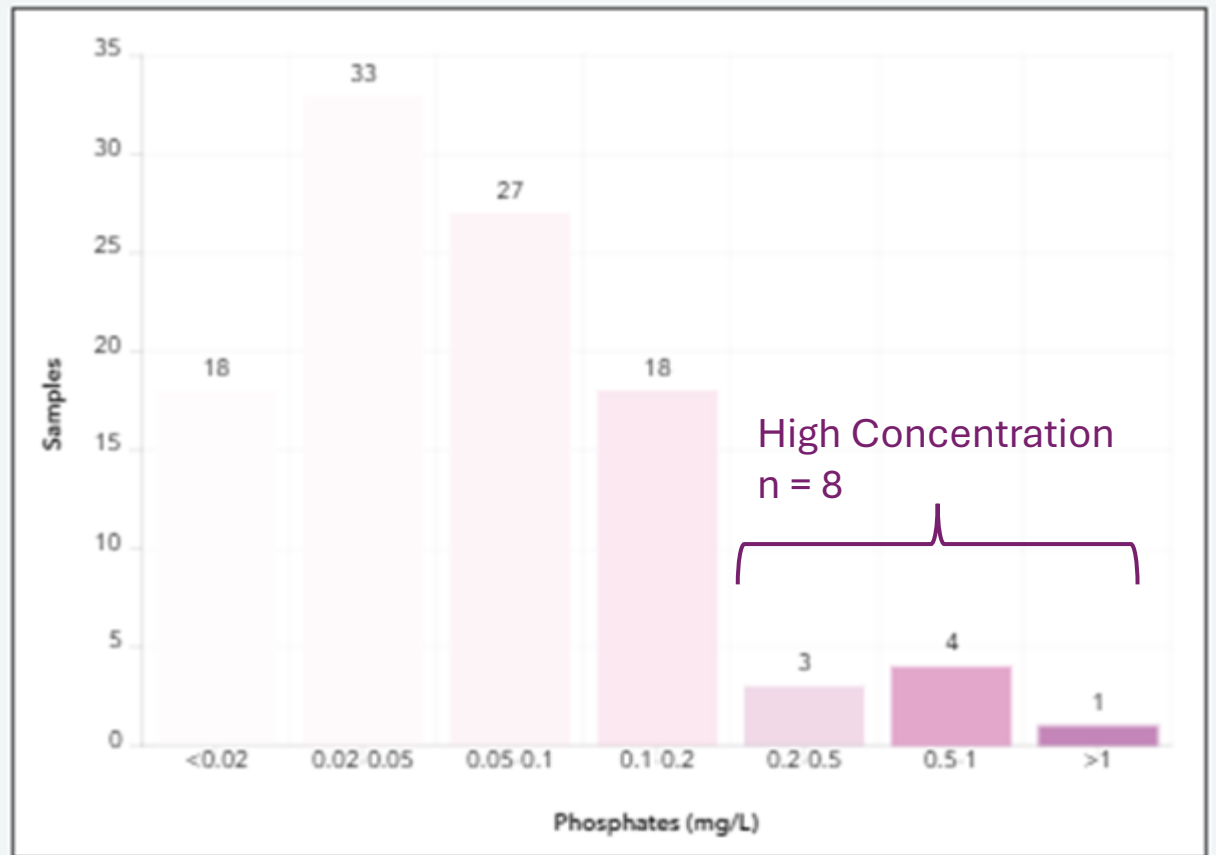
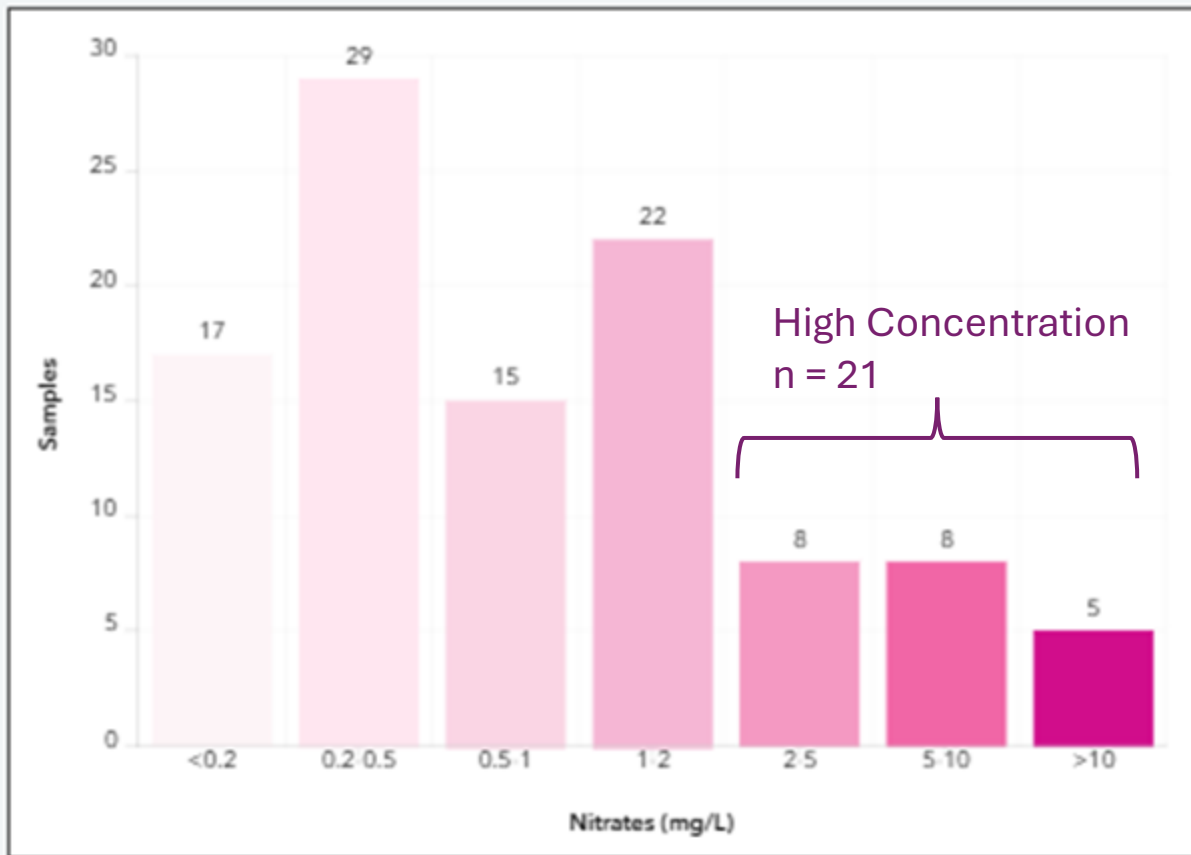


- In terms of the UK, the South East River Basin was ranked in lower end of water quality (ave 34% of rivers showing acceptable levels of nutrients)
- Ouse (and Adur) 38% of samples show acceptable levels
- East Sussex WQ is better than West Sussex



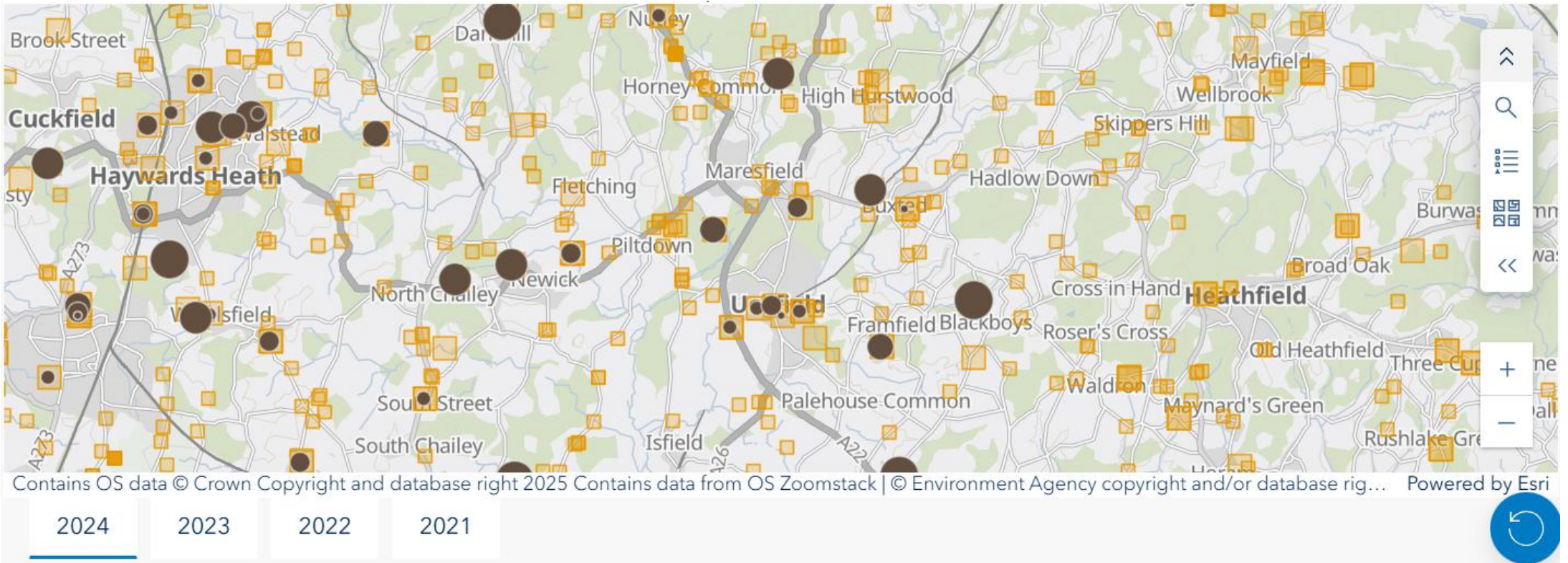
- New Forest
- Rother
- South East TraC
- Adur & Ouse
- Arun
- Cuckmere
- East Hampshire
- Test & Itchen
- Stour

- 104 Samples across Sussex (approx. 75 in Ouse) for Nitrates (N) and Phosphates (P)
- 20% of Nitrate tests show high concentration
- 8% of Phosphate tests show high concentration



River Ouse – high nutrient concentration sample points

Location	High Phosphate (>0.2)	High Nitrate (>2)	Notes
Main Ouse – d/s Lindfield	No	Yes	d/s STW
Main Ouse – Sloop Inn	Yes	Yes	d/s STW
Main Ouse – u/s A275	No	Yes	d/s STW
Longford Stream	Yes	No	
Bevern (Streat)	Yes	No	
Bevern (Barcombe Cross)	No	Yes	
Winterbourne (near A27)	Yes	Yes	Below road
Winterbourne (Bell Lane)	No	Yes	
Ringmer	No	Yes	
Glydne reach	No	Yes	
Lewes A27 STW	No	Yes	Tidal?
Newhaven	No	Yes	Nature reserve



75% of licensed wastewater discharges in Adur & Ouse catchments are non water company

Legend

Storm overflows with Event Duration Monitoring

Counted spills using 12-24h counting method

- 99 - 367
- > 59 - 99
- > 39 - 59
- > 19 - 39
- > 0 - 19
- 0 - 0

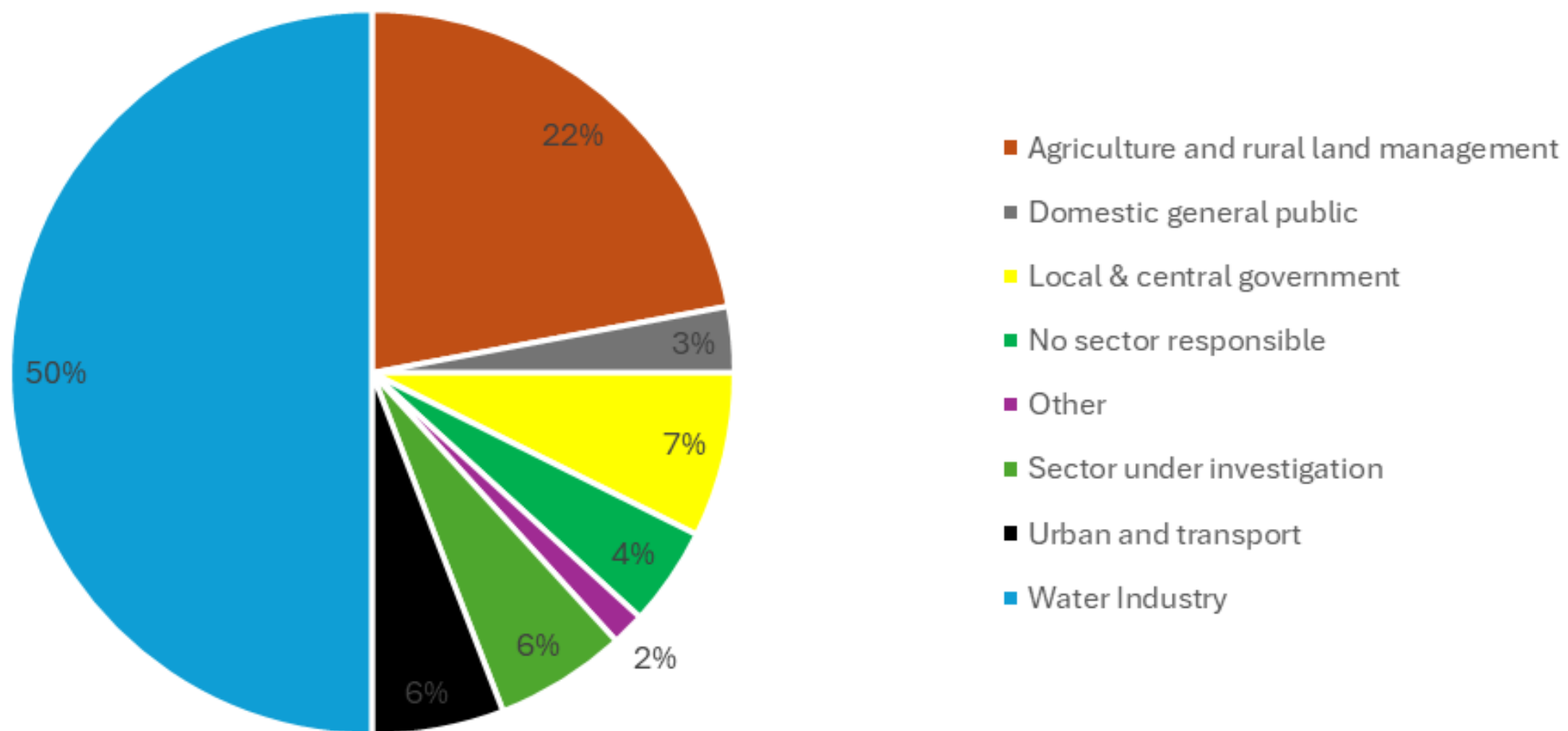
Storm overflows without Event Duration Monitoring



Treated sewage discharges

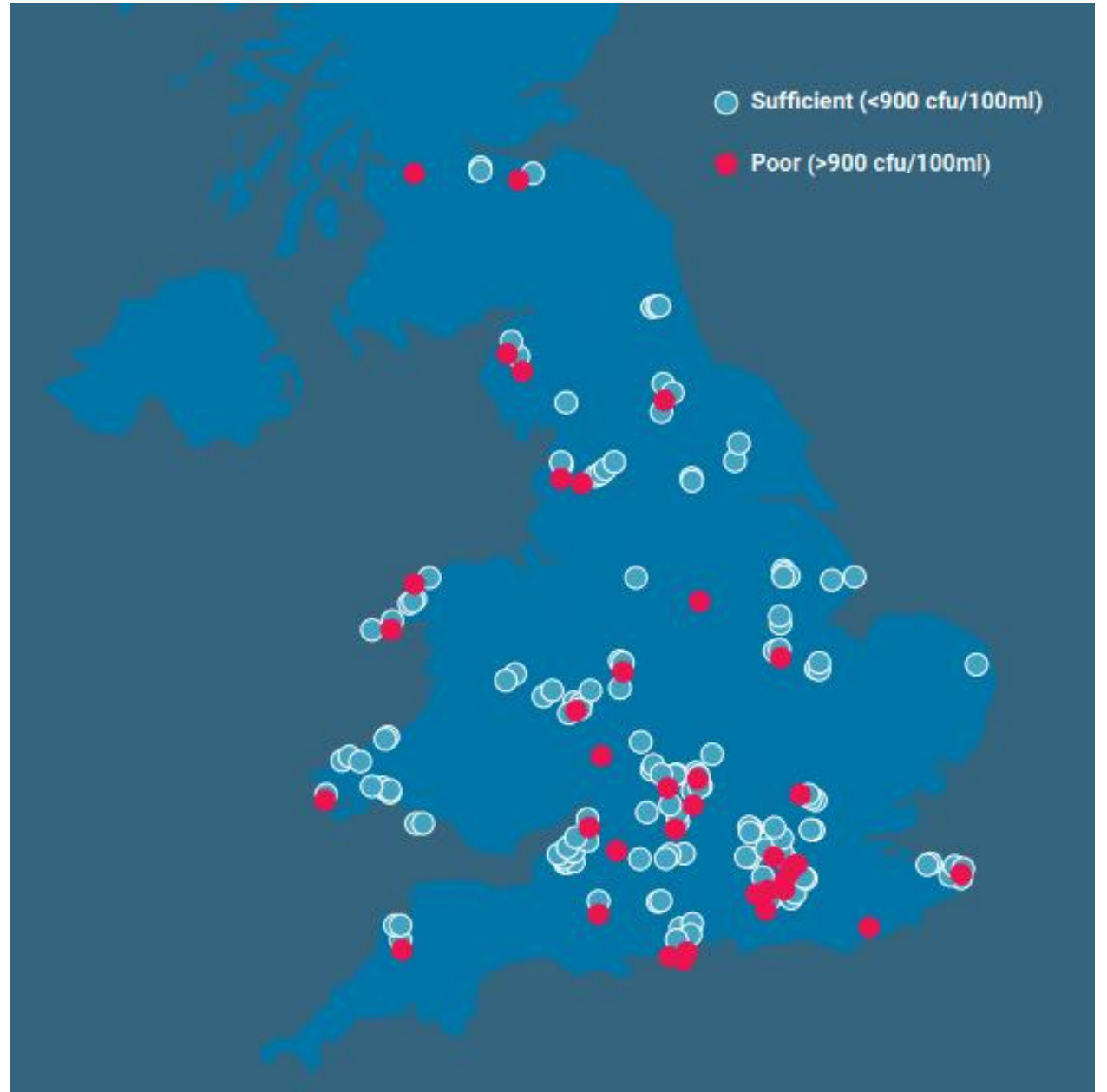
- Sewage - water company
- Sewage - not water company

Sectors Responsible for WFD failure - Upper Ouse



Earthwatch Waterblitz Apr 25 - E. coli testing

- Earthwatch also tested for E.coli – a serious threat to human health, and indicative of poor water quality
- 24% of freshwater sites tested would be classified as poor for E. coli
- Positive correlation between presence of Phosphate and E. coli.
- Beavers and water quality!



Focus - Uckfield

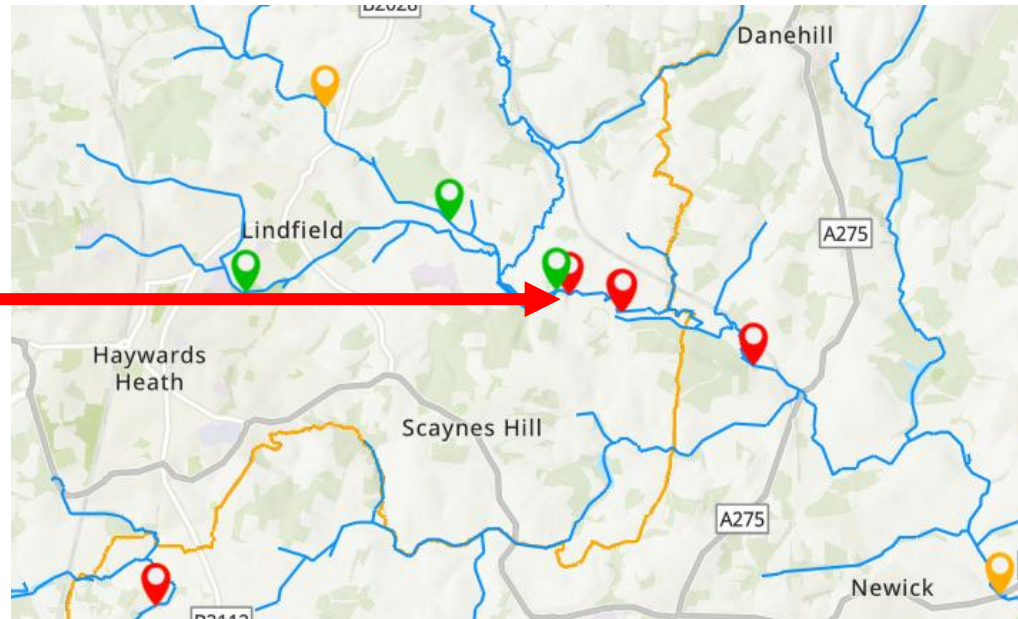
- Failing WFD for Phosphate
- Waterblitz results show only moderate readings for Phosphate and Nitrates ($N = 1-2$ / $P = 0.05 - 0.1$)
- OART long term testing suggests consistently higher levels of Phosphate & Nitrates than Waterblitz (OART range $P =$ between $0.8 - 3.1$ / $N = 0.0 - 0.7$)
- Suggested to originate from non-water company septic tanks etc (not STW)



Focus – Upper Ouse

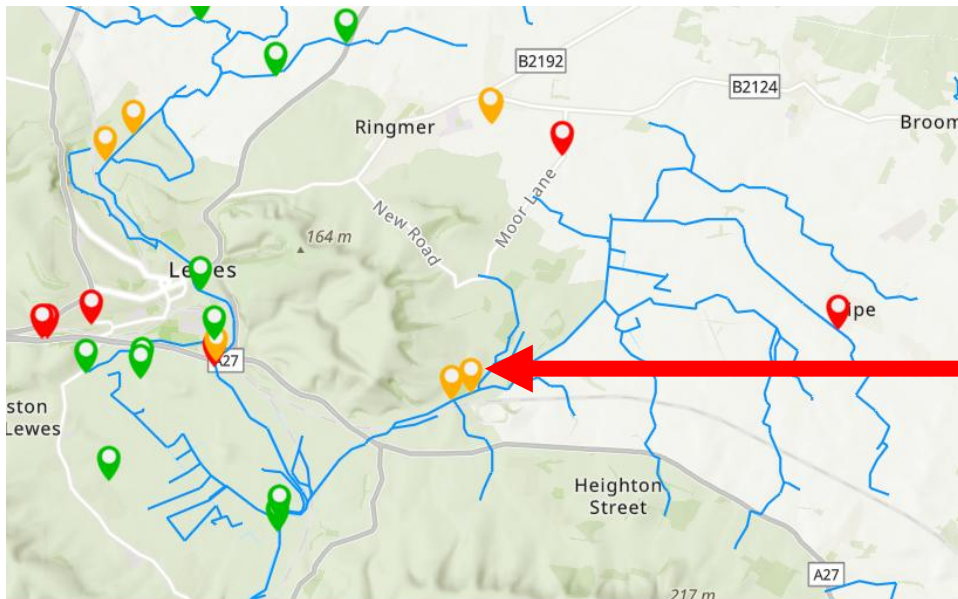
- Failing WFD for Phosphates
- Readings high below STW – although largely Nitrates
- Farming and septic tanks likely influence

Scaynes Hill STW
(SW) – 2024 58 spills
/ 636 hours)



Focus – Glynde Reach

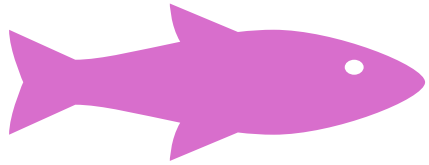
- Consistently failing WFD
- Highest Nitrates in Ouse
- Not currently covered by other testing.... LOO to help!?



STW (SW) in 2024
Issued 104 times /
1286 hours



Action! How to Help and What is Being Done



National freshwater monitoring schemes

Freshwater watch

Riverfly

Rivers Trust 'Big River Watch'

Coastal

- Strandliners
- Surfers Against Sewage



Ouse & Adur Rivers Trust

Water Quality – regular multi parameter monitor at fixed points

Riverfly surveying - fixed point in-river sampling for aquatic invertebrates

Invasive non-native species recording and eradication



Love Our Ouse

Glynde reach – starting regular water quality testing to widen OART data

Hidden data – shifting baselines

River connections – knowledge and celebration

Summary



Provides a useful
and large dataset of
water quality on the
Ouse

Power of testing
many points

Dilution – rainfall
and low flows

One off testing
doesn't show longer
trends, or daily
variation (Bevern)

Hidden trends - data
analysis!

Local knowledge
vital and important

Water quality tests –
accuracy



What floats your boat?

Thank you for Loving our Ouse

Email: info@loveourouse.org
www.loveourouse.org



celebrate learn act!

