FYLDE COAST AGAINST SEWAGE

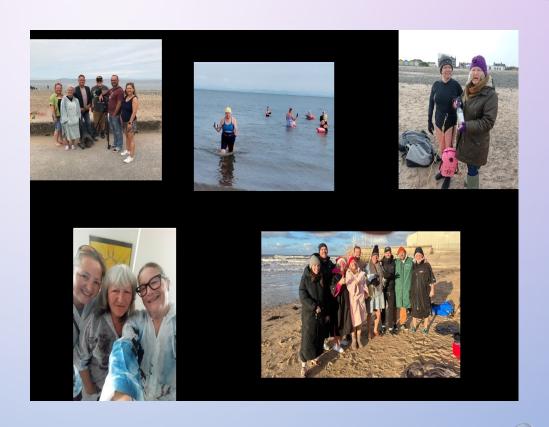## CLIMATE ACTION PRESTON

15-3-25

FCAS: Who Are We?

Citizen Scientist group based on the Fylde Coast

Originally formed by a local sea swimming group in response to a major sewage spill in Blackpool by United Utilities in 2023

With the aim

to raise awareness of the water pollution situation in the sea through information and independent water testing

FCAS : What did we do ?

- Weekly seawater tests from Marine Beach Fleetwood and St Annes Beach North sent for lab analysis

- Intestinal Enterococci and E. Coli are indicative of faecal pollution (sewage)

- Results are shown as Colony Forming Unit numbers in graphs (All results)

- We used the Environment Agency(EA) statistical model as bacteria are assumed to have a Log10 normal distribution

- We have compared FCAS ,EA and combined EA /FCAS results

FCAS : What did we do ?

- Beaches are classified by the Bathing Water Directive standards

- EA use measurements over a 4 year period May to September

- The EA provided 64 measurements for 2020-2023- – we have done 24 from February to July

- The lowest bacterial score is used for the beach classification

- Note the change of percentile for Intestinal Enterococci

- Method and results discussed with Senior Lecturer in Environmental Science at Lancaster University

EU BATHING WATER QUALITY CLASSIFICATION

Classification	Thresholds (percentile)		
	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	means that the values are worse than the sufficient		
	Key EC: Escherichia coli, IE: Intestinal enterococci, cfu: Colony Forming Units		
	https://environment.data.gov.uk/bwq/profiles/help-understanding-data.html		

How We do the Testing

1.Collecting The Water: In Fleetwood and St Annes

In cold weather and in Warm weather !

2. Packing the Sample and sending off to DHL

3. Receiving the Result

Fleetwood Marine Beach

FCAS Results (24) using EA model
Fleetwood Marine Beach : Jan-May 2024

E. Coli	Percentile Concentration (cfu/100 ml)
26	95th percentile concentration (cfu/100 ml)
22	90th percentile concentration (cfu/100 ml)

I.E.	Percentile Concentration (cfu/100 ml)
124	95th
85	90th

FCAS Results E.COLI = Excellent

FCAS Data I.E. = Good

Classification	Thresholds (percentile)		
	Coastal Bathing Waters		
Excellent	EC: ≤250 cfu/100ml ; IE: ≤100 cfu/100ml (95th percentile)		
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FCAS (Jan-May 2024) + EA Results(2020-2023) 88 results
Fleetwood Marine Beach

E.Coli	Percentile concentration (cfu/100 ml)		I.E.	Percentile concentration (cfu/100 ml)
285	95th	FCAS +EA results combined	190	95th
172	90th		125	90th

E.Coli = Good   Intestinal Enterococci = Good

Classification	Thresholds (percentile)
	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	means that the values are worse than the sufficient
Key EC: Escherichia coli, IE: Intestinal enterococci, cfu: Colony Forming Units	
https://environment.data.gov.uk/bwq/profiles/help-understanding-data.html	

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ST ANNES NORTH BEACH

FCAS Results (24) using EA model
St Annes North Beach : June – November 2024

E. Coli	Percentile Concentration (cfu/100 ml)
3534	95th
1852	90th

I.E.	Percentile Concentration (cfu/100 ml)
294	95th
190	90th

FCAS Results E.COLI = POOR

FCAS Data I.E. = Sufficient

POOR

Classification	Thresholds (percentile)
	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)
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Raising Awareness: TV crews and MPs

blackpool.thelead.uk
Tougher measures on water companies welcome but Blackpool Council accus…