



Pollution problems in the Wharfe: A very brief introduction

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The Wharfe: its wonders and woes, Church Hall, Addingham, July 20th, 2024

The main threat to the **ecological health** of the river is nutrient pollution (or “**eutrophication**”)

It is caused by the input of the nutrients **phosphorus and nitrogen** into becks and rivers from a variety of sources

Sources of nutrient pollution



Treated sewage



Surface runoff



Field drains



Fertilisers



Untreated sewage



Septic tanks



Livestock

Nutrient pollution causes excessive filamentous algal growth on stones and changes to the entire food web including fish



Malham Tarn (Suzanne McGowan)



Upper Wharfe (Kathleen Roberts)



Lower Wharfe (Mike Gadd)

The single most severe point source of nutrient pollution on the river Wharfe is the **treated effluent** from Ilkley Sewage Works



The main threat to **human health** (rather than ecological health) are “**faecal pathogens**” such as *E. coli*

Their populations in becks and rivers derive from a **variety of sources**

Sources of faecal pathogens



Treated sewage



Surface runoff



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Septic tanks



Livestock

Concern about threats to human health from faecal bacteria was raised locally and came to prominence nationally as a result of the work of the **Ilkley Clean River Group (2018)**



Initial concern was based on the occurrence of frequent spills of untreated sewage into the river in Ilkley near the Cromwheel corner



Steve Fairbourn, 23rd March 2016

Spills occur all along the river including from the storm overflow tanks at the Addingham Pumping Station

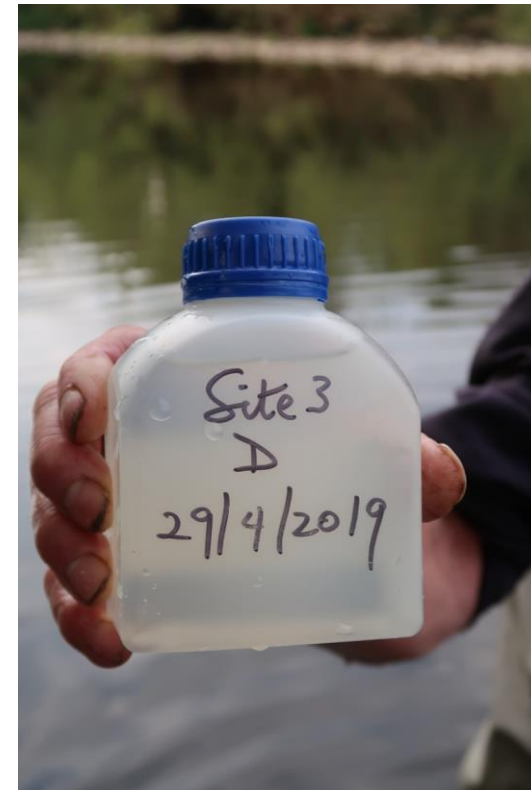


November 2019

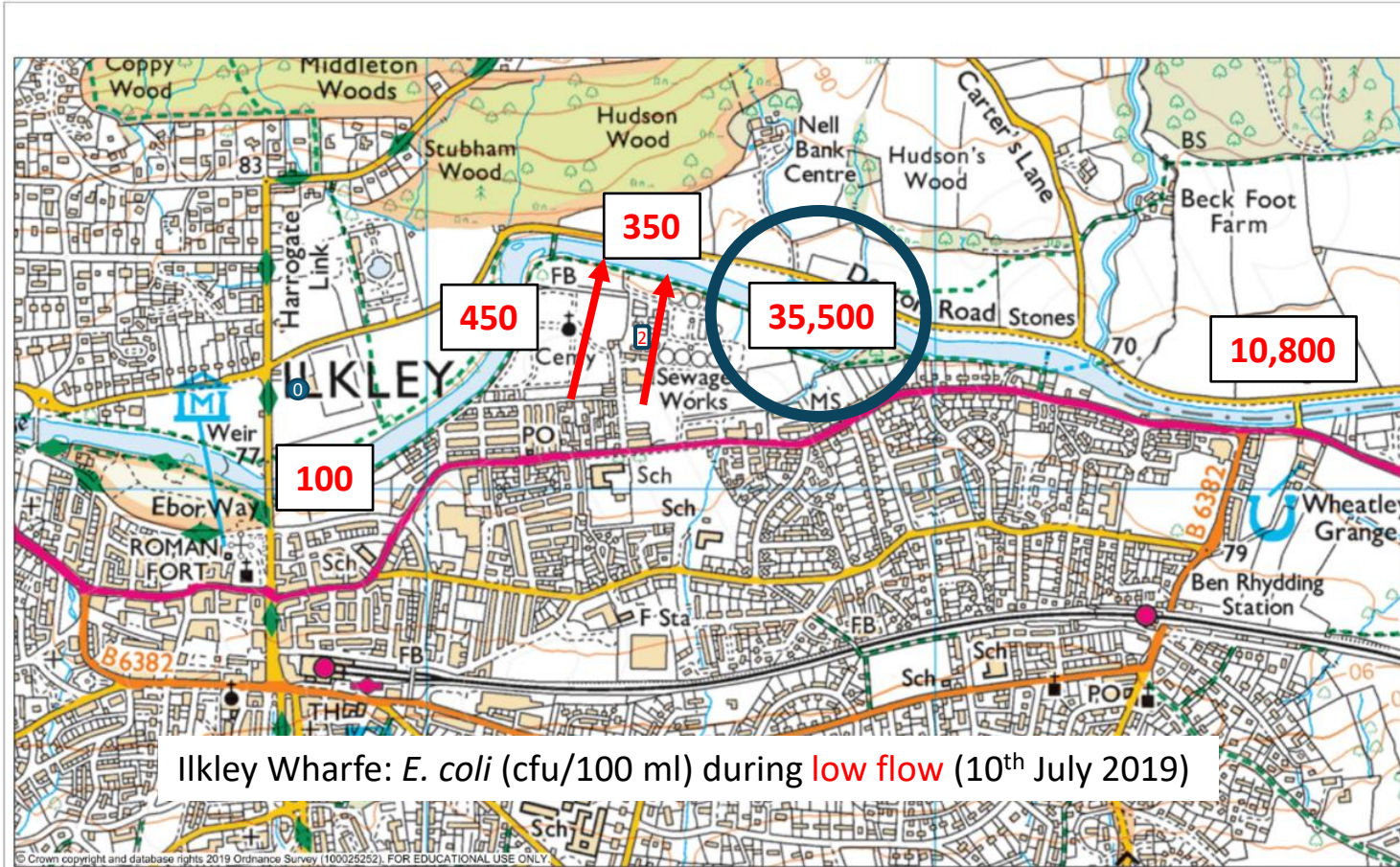


Pictures from Steve Fairbourn

Our citizen science projects, begun in April 2019, confirmed the impact of untreated sewage spills on *E. coli* numbers



But also showed that the *E. coli* in the river came from “treated” sewage effluent as well as untreated spills



And, after rainfall events, from agricultural sources



Photo: Jonathan White

River Wharfe: Bolton Abbey

Application to Defra for
bathing status (2019)
Visitor numbers and facilities
more important than water quality



Visitor numbers

No	Date	Day of week	Total Users	No Weekend/BH	No Holiday days
1	25th July	Tues	1,751		1
2	23rd July	Thurs	1,120		2
3	29th June (3.30pm)	Sat	746	1	
4	26th August	Mon (BH)	732	2	3
5	25th August	Sun	657	3	4
6	24th August	Sat	568	4	5
7	24th July	Wed	468		6
8	29th June (1.30pm)	Sat	342	5	7
9	24th August	Sat	318	6	8
10	27th August	Tues	288		9
11	4th August	Sun	191	7	10
12	8th August	Thurs	109		11
13	21 st Sept	Sat	123	8	
14	14th July	Sun	113	9	12
15	5th August	Mon	81		13
16	23rd August	Fri	75		14
17	29th August	Thurs	61		15
18	7th August	Wed	48		16
19	1st August	Thurs	48		17
20	13th August	Tues	43		18
21	22nd June	Sat	42	10	

Table 1: The Count Top 21 days

→ [Coronavirus \(COVID-19\)](#) | Rules, guidance and support

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Press release

Ilkley gets green light for first river bathing site in England

Part of the River Wharfe at Ilkley becomes the first river bathing site in England, which will help to make the water cleaner and safer for local swimmers

From: [Department for Environment, Food & Rural Affairs](#), [Environment Agency](#), and [Rebecca Pow MP](#)

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