

Addressing Sewage Pollution & Innovating Solutions

Tom Gurd

Challenges

- Rain & ground water forces sewage out when it enters the network
- Rain has different 'management & regulation' in different locations
 - Ground, Rivers & Seas (EA)
 - Surface & Road (CC)
- Current partnership model creates barriers to catchment management, focused on redistributing rainfall.
- Major network issues utilizing all available resources in problem hotspots. Creating barriers to preventative, 'agile' solutions.
- Insufficient data makes catchment management difficult

Agenda

1. Why is sewage pollution increasing so quickly?
2. Public Health Alert
3. The impacts on our *Upper Hamble Estuary and Woods* SSSI
4. Southern Water – commitments
5. The future operating model – catchment focus

Botley Sewage Campaign

Pollution of the *Upper Hamble Estuary and Woods SSSI* continues increasing, caused by development.



Botley Campaign vs population GROWTH

Year	Population	Growth	YoY	Event / Impact
2031	12214	141%		TBC
Today				River bed suffocated in weed & sewage fungus. Dramatic reduction in tidal fish
				Blue Green Algae, public health warning. Expected annually
2026				Southern Water extend commitment, c£5M works
				Southern Water commit upgrades to Paul Homles MP
				First Blue Green Algae public health warning
	10158	100%	4%	Shearcroft Meadows, c130 homes, connected to problem HOTSPOT (Winchester)
2025	9937	96%	14%	Motion passed in support of NEW campaign strategy
2024	9212	82%	18%	Boorley Green WPS 'events', IMPACT: River Hamble (RH). TG joins sewage campaign
2023	8282	63%	12%	River pollution increases visibly, tidal fish disappear at tidal limit (No food)
2022	7674	51%	11%	Pollution @ Boorley Green WPS, IMPACT: River Hamble (RH)
2021	7124	41%	14%	Regular fish deaths noted by river users
2020	6413	27%	10%	Neighbourhood planning committee highlight issues
2019	5902	16%	10%	Paul Holmes MP starts campaigning against sewage pollution in Botley
2018	5393	6%	7%	Boorley Green development starts occupation
2017	5051	0%	0%	Sewage flooding @ Heathen Street in Durley, IMPACT: Ford Lake, trib. RH.
2016	5049	0%	0%	
2015	5067	0%	0%	Sewage Taskforce formed by Cllr Rupert Kyrle (Hampshire) to address increasing pollution

Actual numbers

Census numbers

HCC forecast numbers

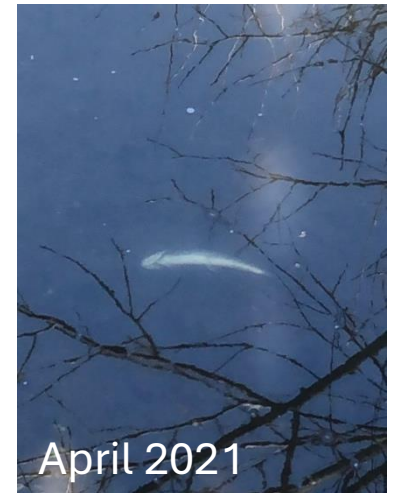
BPC forecast numbers

NOTE: There is no fish survey data describing the impacts of pollution & reduction in feeding behaviours at the tidal limit.
Observational evidence is very strong.

>3000 New homes since 2018, >100% population growth



August 2021

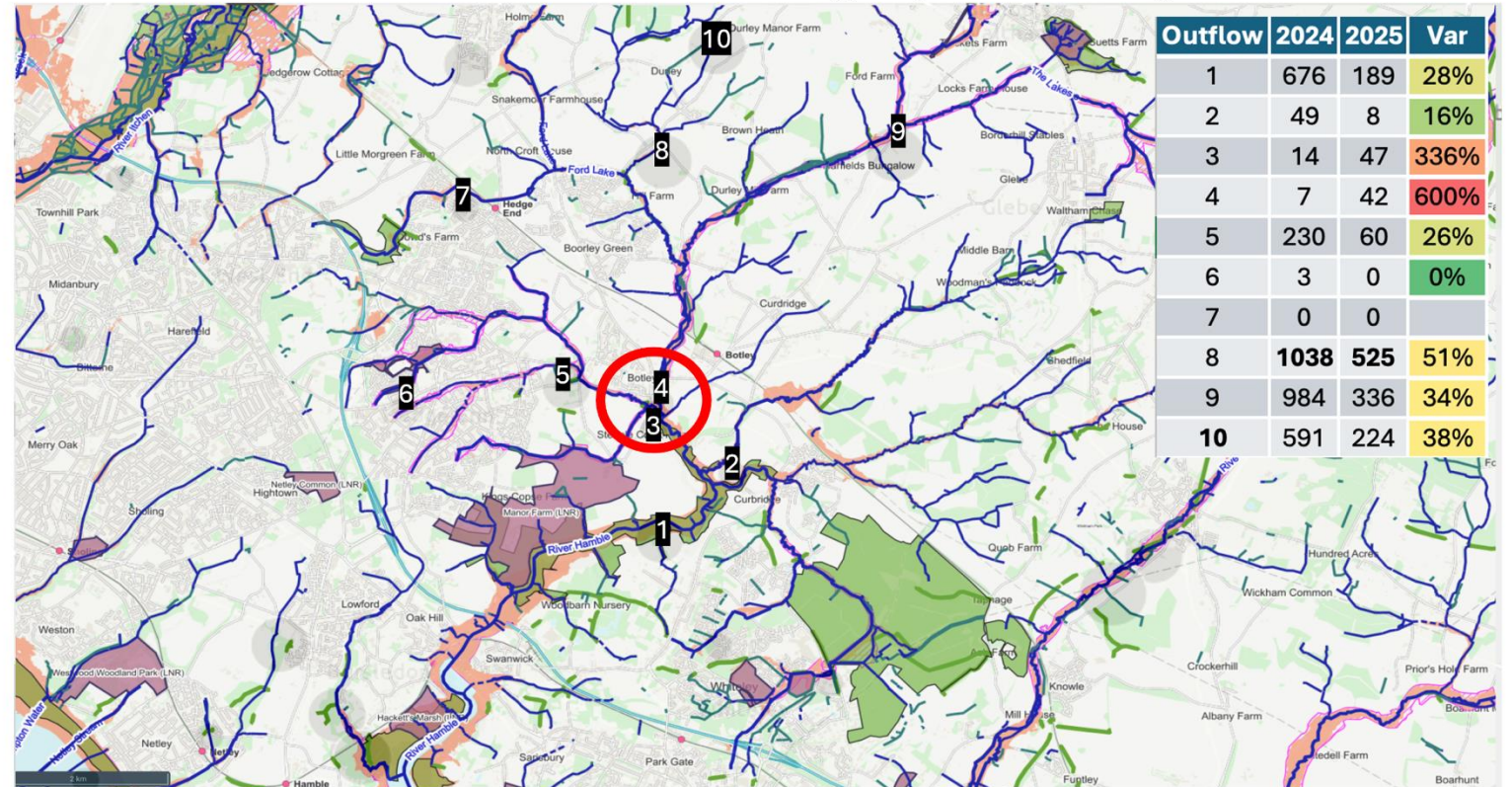


April 2021

Sewage Pollution

- 100% more sewage enters the network vs 2018
- Data shows **alarming** increases from **licensed outflows**
- When outflows are active. Sewage also escapes the network from **unlicensed locations**, causing **illegal pollution events** across the catchment.

EA Data shows a **600% increase** in the exact location where SW connected Shearcroft Meadows in 2025, a problem area reported by Paul Holmes since 2010's. Referenced against an average **60% reduction** across the region, facilitated by reduced rainfall.



*Trend shows **SSSI** ~ 1000% increase caused by not enforcing Grampian Conditions.*

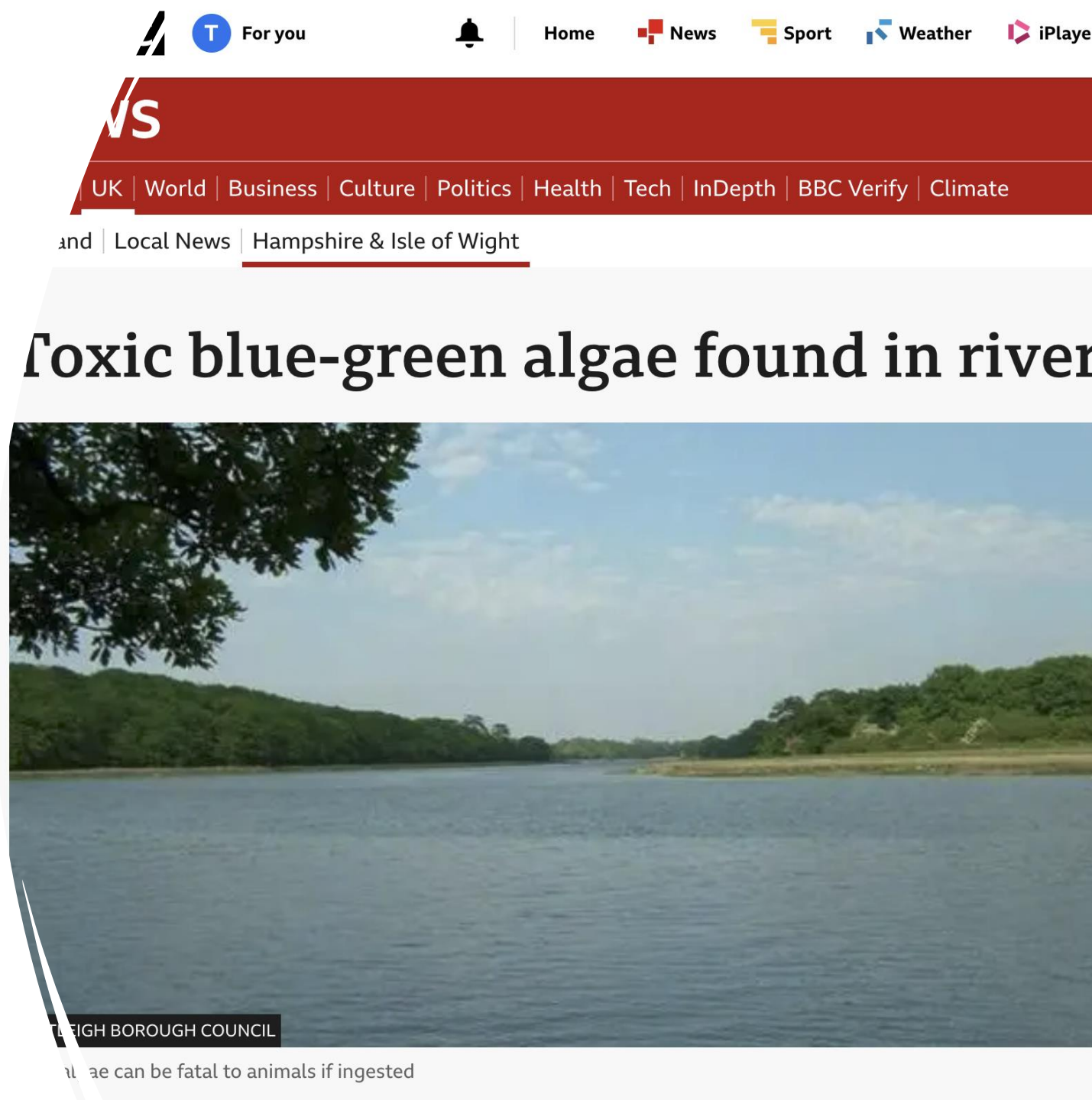
Why is Sewage pollution increasing so quickly?

- 'Grampian conditions' is **the only mechanism in the planning process**, to prevent increased pollution caused by development.
- The local planning authority (**LPA**) is **the only body** with power to uphold 'Grampian conditions'.
- **Southern Water requested that 'Grampian conditions'** are upheld in Botley, during meeting with Paul Holmes MP in August 2025. Problems are well known for >10y.
- The LPA state that Grampian Conditions (GCs) can be used in particular circumstances when the **LPA considers it appropriate**.

(Grampian conditions impact the time & cost of development. LPA not held accountable for increased pollution)

Public Health Alert

*Upper Hamble Estuary and
Woods SSSI*



Visible across the SSSI, the situation has escalated vs 2025

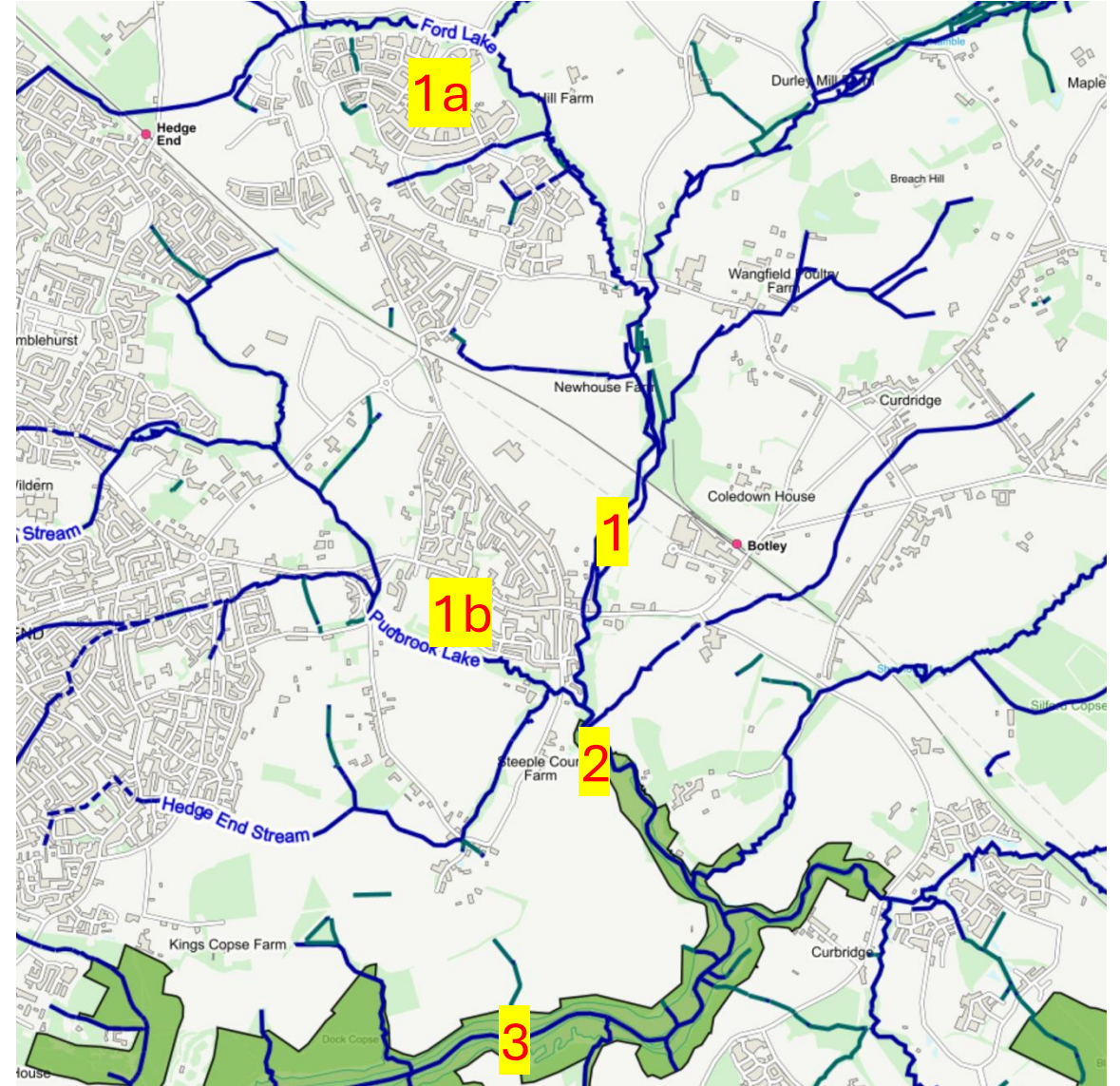


Campaign Focus

1. Find where illegal discharge reaches the watercourse & share these locations with stakeholders to ensure visibility
 - Use ammonia test strips to confirm suspected outflows
 - Mobilize neighbors to monitor & increase volume of reports to Environment Agency
 - Work with SW enablement manager to define & support mitigation planning
2. Lobby LPA's to uphold Grampian Conditions & STOP 'writing cheques, Southern Water can't cash'
 - Presentation tour to socialize the facts with stakeholders
 - Direct engagement with LPA regarding future developments
 - Public information campaign to socialize the facts
3. Improving Awareness for all river users
 - Seek bathing area status for a site in the estuary
 - Minimize the risk of harm to river users, encourage curation of trusted, practical, advice
 - Minimize the impact on businesses who rely on river users,

The impacts of sewage pollution

1. Botley – Algal blooms, sewage fungus
 - a. Ford Lake – Major pollution impact (TBC)
 - b. Pudbrook Lake – Complete loss (Regen.)
2. Upper SSSI
 - Advanced Eutrophication
 - Significant reduction in tidal fish, feeding
3. SSSI
 - Blue-Green Algae, phytoplankton, sewage (after rain)
 - Reports of sickness after swimming





May 2023



June 2026



October 2021



August 2025



June 2026



May 2026



July 2023



June 2026

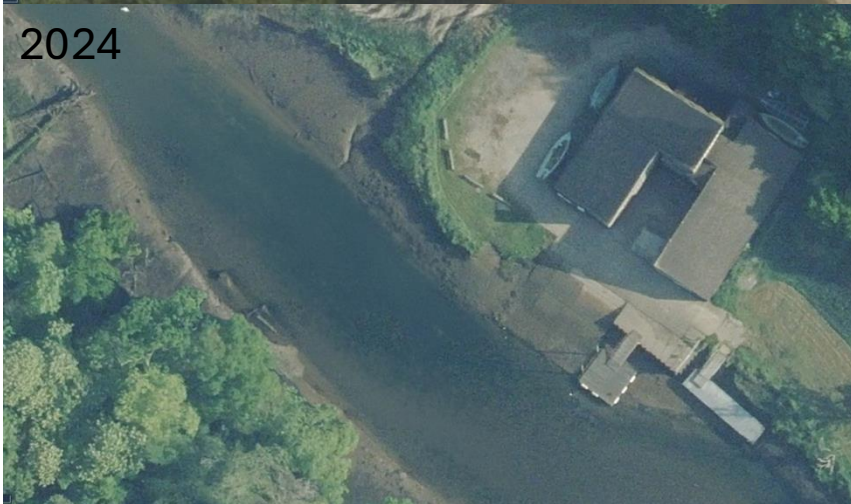
SSSI Gravel beds consumed by weed

Banks coated in diatom scum

2017



2024



2026



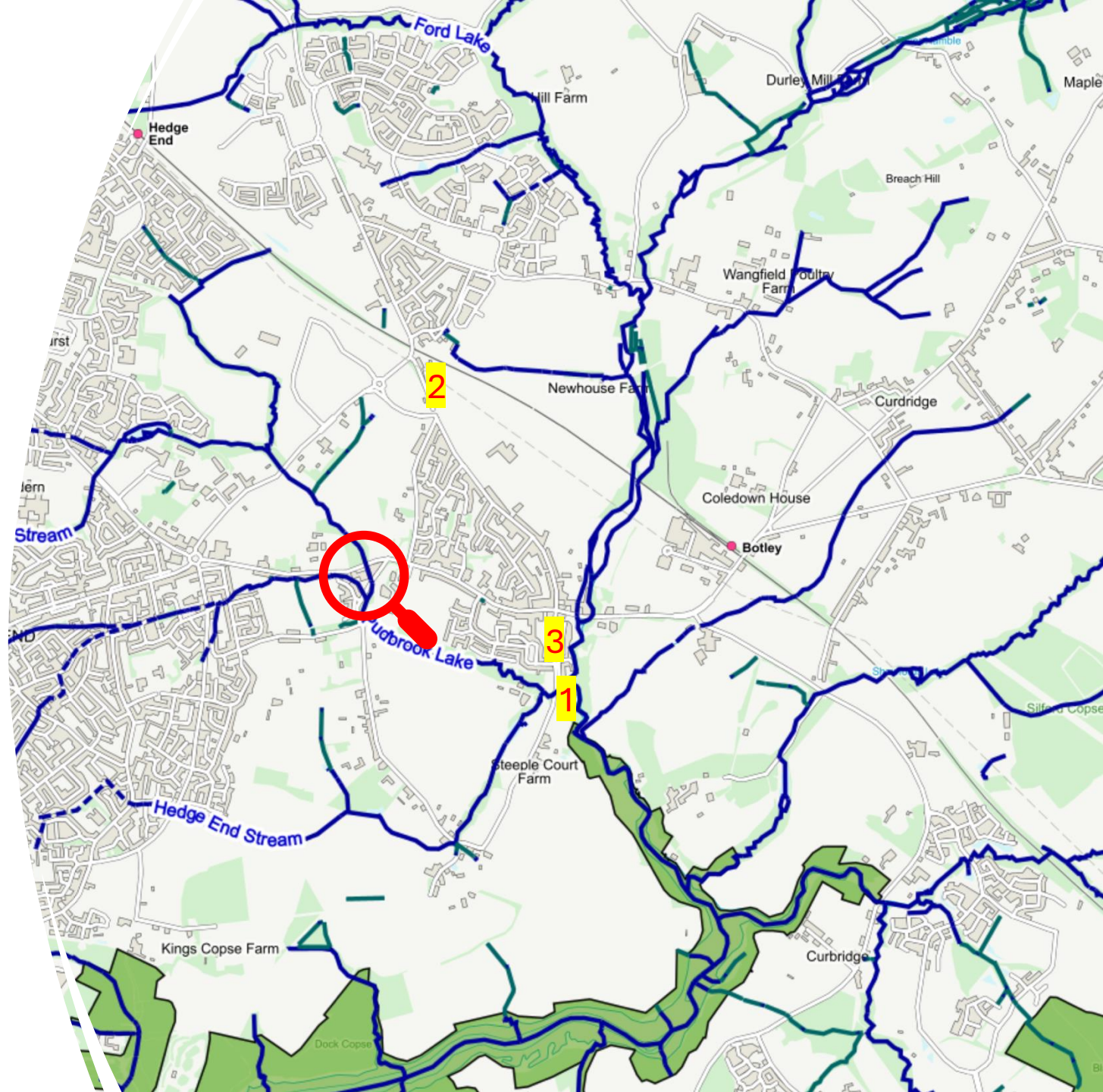
Southern Water Commitment

Interventions

1. Church Ln, grow attenuation tank
2. Winchester St, flow diversion
3. Church Ln, upscale sewer



TBC



£5M Investment in Botley, is a 'start'...

- £2.5M* per year revenue growth from development, without any investment in the legacy network, **until now!**
- Still no plan to prevent sewage flooding Broad Oak @ Sparshatts, impacting Pudbrook Lake
- Still no misconnection program to reduce flows in Botley
- Still no pump station control for 'online' tanks (AI)

* 3000 new homes, 2-people per home, [../average-water-use-and-cost/](#)

Peel Common Cluster 2

- Flooding has been reported in Peel Common Catchment 'Cluster 2' (Borley Green/Botley)
- SWS have commissioned M Group Water to investigate and resolve the matter.
- Since two high level options were identified in August 2025, further investigations undertaken have identified an additional third option.
- The following slides present the three solutions.
- With an estimated level of Investment of circa £5M

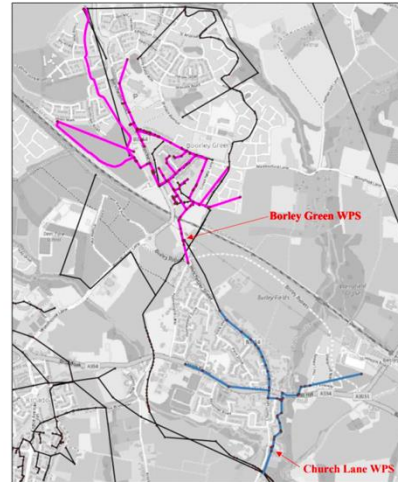
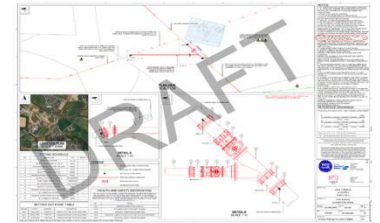


Figure 3.01 – Peel Common Cluster 2

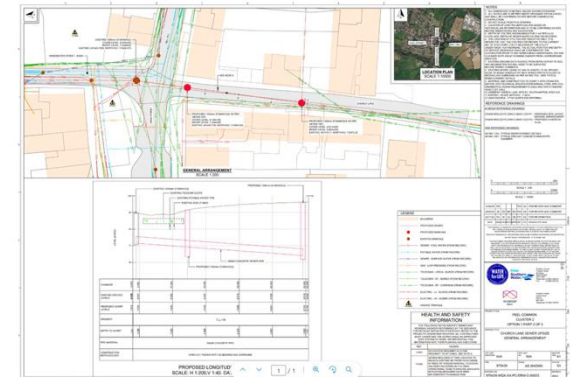
Solving two challenges - Update

- **Reduce existing flooding** at Botley in light of recent connection of the development at Sherecroft Farm
- **Solution 1:** new storage at Church Lane WPS has increased in size from c.200m³, 6.6m diameter x 6m deep to c.250m³, 5.5m dia x 17m deep
- **Revised Target start date:** Nov 26 for 24 weeks
- **Reduce detriment** Following onsite investigations, flows from Hedge End development are to be diverted away from Winchester Street pump station
- **Solution 2:** cross connection has been surveyed and a design selected
- **Revised Target start date:** Oct 26 for 16 weeks



Enhanced Solution

- **Additional works identified since Aug 25 to support problem resolution**
- Due to the hydraulic sensitivity of the area, investigations were conducted to assure the initial high-level design this resulted in an additional work package
- **Solution 3:**– upsize of Church Lane sewer.
- This removes the bottleneck in Church Lane, increasing capacity in the local area
- **Target start date:** end Oct 26 for 10 weeks



- Additional specialist engineer surveys (impermeable areas surveys – IAS) are commissioned to investigate additional surface water separation opportunities, with the potential for green or grey improvement solutions, further increasing the local network resilience

The planning authorities have 'written a cheque, that Southern Water can't cash'

We hope that interventions will have a significant impact BUT we must face the fact that our legacy network will never have the capacity to manage 'heavy or persistent rainfall'.

Remember: 100% more sewage enters the network vs 2018 due to population growth

100% more sewage exits the network vs 2018 during events driven by rainfall

“Necessity is the mother of invention”

If we want a clean river, we need to find new solutions... that simplify the challenge & accelerate the outcomes.

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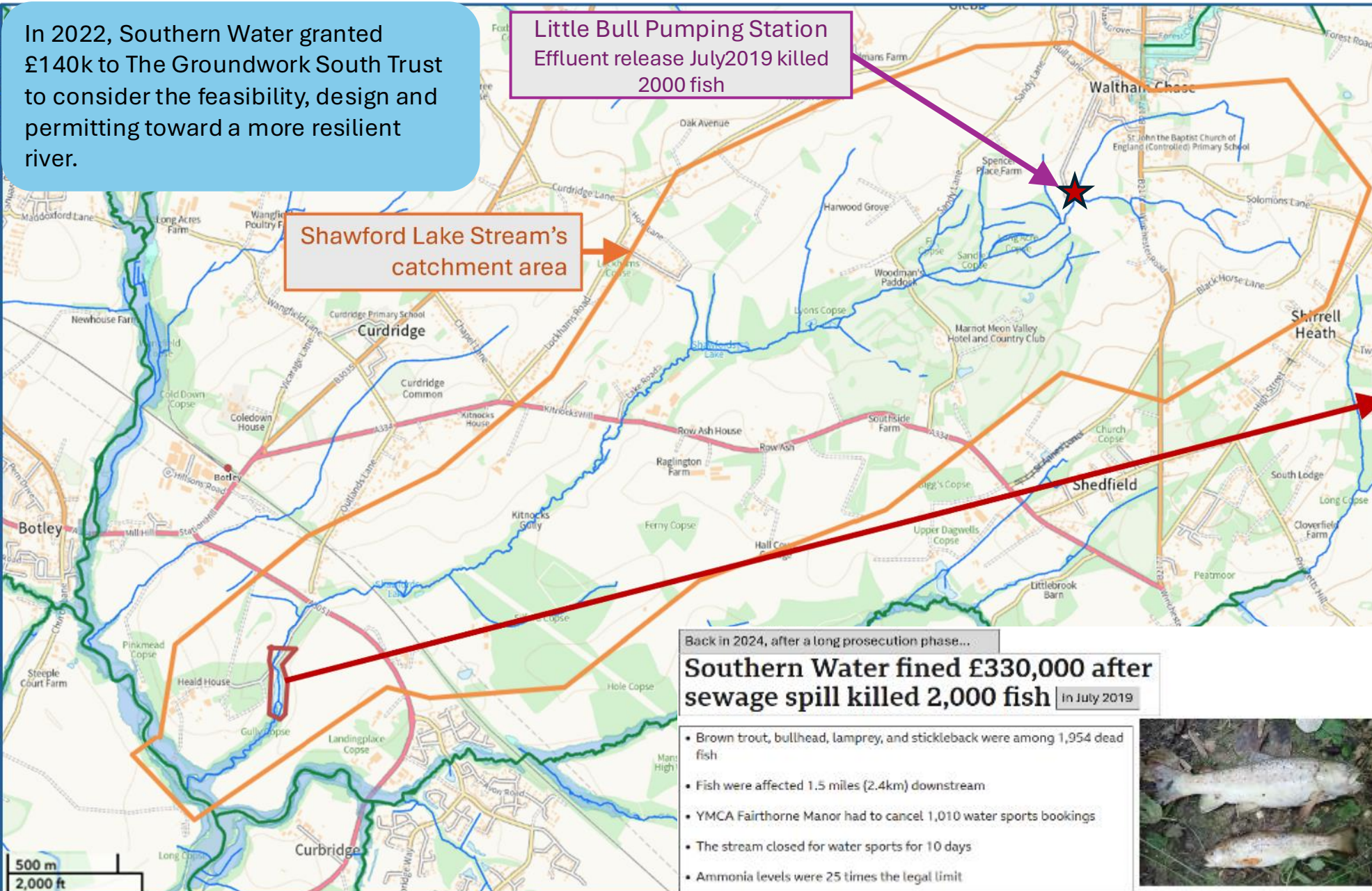
Questions?

Shawford Lake Stream – River Revival Project

In 2022, Southern Water granted £140k to The Groundwork South Trust to consider the feasibility, design and permitting toward a more resilient river.

Little Bull Pumping Station
Effluent release July 2019 killed
2000 fish

Shawford Lake Stream's
catchment area



Back in 2024, after a long prosecution phase...

**Southern Water fined £330,000 after
sewage spill killed 2,000 fish** In July 2019

- Brown trout, bullhead, lamprey, and stickleback were among 1,954 dead fish
- Fish were affected 1.5 miles (2.4km) downstream
- YMCA Fairthorne Manor had to cancel 1,010 water sports bookings
- The stream closed for water sports for 10 days
- Ammonia levels were 25 times the legal limit



Project area around
Fairthorne Manor's lake





Upstream



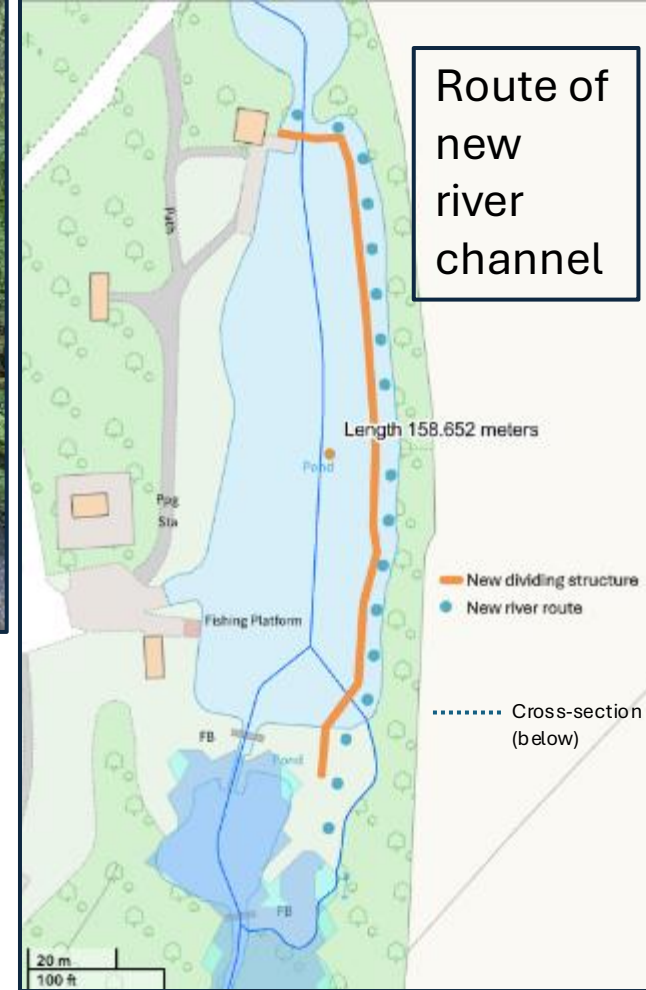
Downstream



Drained lake



The lake



Cross-section of lake and new river channel.....

