

BCP Scrutiny Panel Christchurch Harbour

15th July 2026

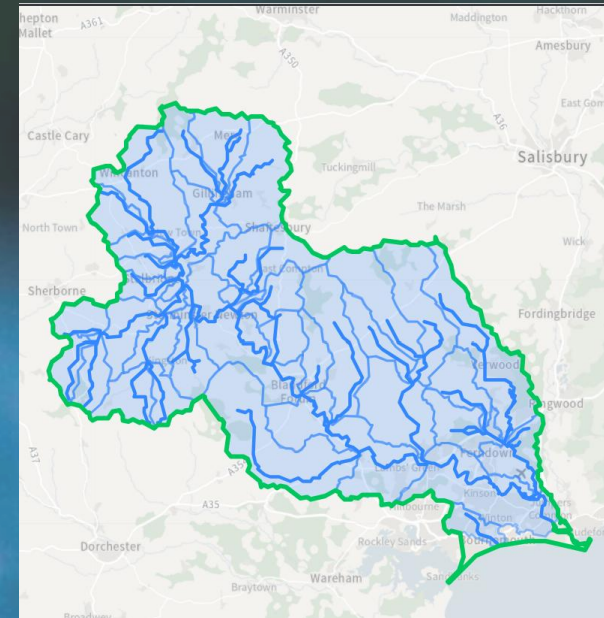
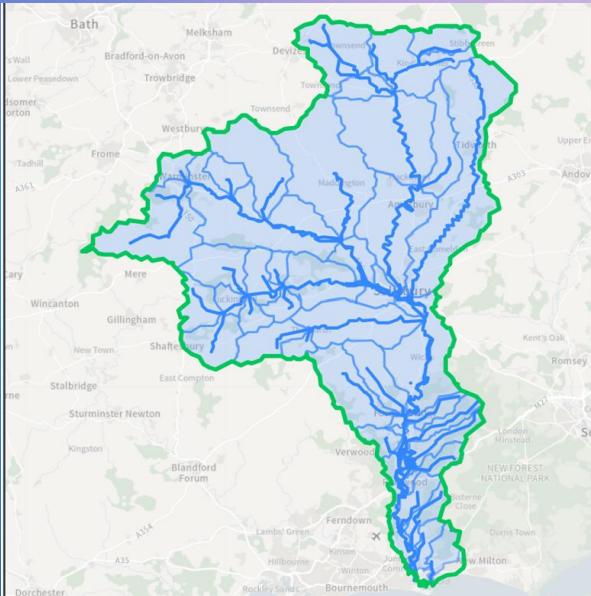
Wessex Water

YTL GROUP



Environmental data:

Hampshire Avon and Dorset Stour



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For **continuous discharges**, the Environment Agency set flow and concentration limits to constrain the load discharged (flow x concentration = load)

- Flow limit (Dry weather flow [m^3/day]) is based on a future population
- Flow gradually increases as population increases towards dry weather flow limit
- Discharge concentrations [mg/l] are regularly monitored against the concentration limit
- Concentration limit is tightened when flow approaches limit
- We ensure sites outperform against concentration AND flow and therefore load to the environment is lower than the permit requires

General approach to effective Phosphorus removal



1. Upfront chemical dosing

- Coagulant such as ferric sulphate helps phosphorus attached to solids to settle out in the primary settlement tanks
- Gets P concentration down from c5mg/l to <1mg/l (i.e. 80% removal)



2. Back-end filtration

- Often requires upsizing whole upstream process due to impact of backwashing
- Gets P concentration down from c1mg/l to <0.25mg/l (i.e. total 95% removal)



Hampshire Avon nutrient concentration permits and performance (May 2026)

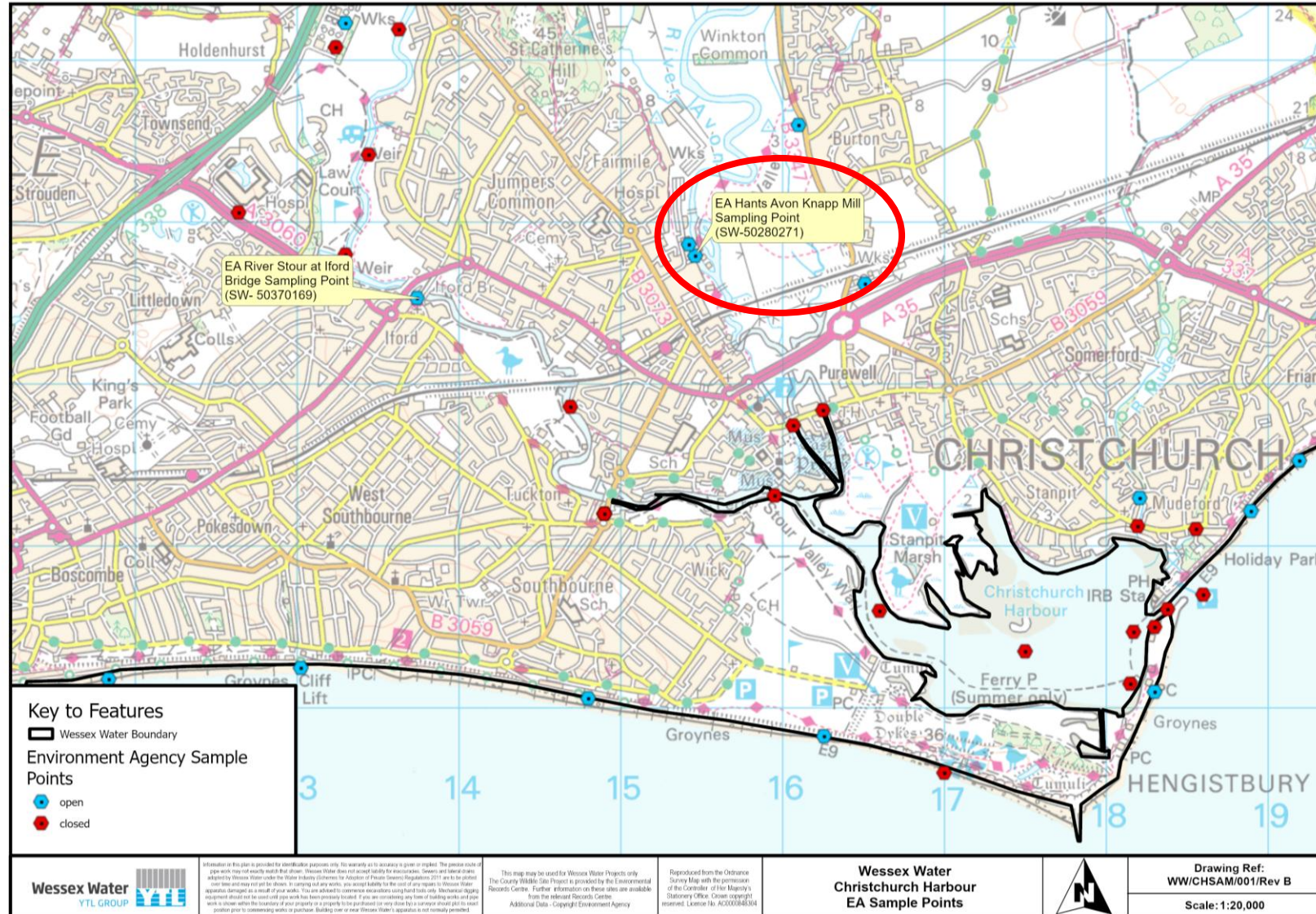


Site ID	Site Name	River Catchment	Permit Limit (mg/l) Mar 2025	Av Discharge concentration level May 2026 (mg/l))	Percentage of permit	Further upgrade before 2030?	Permit limit (mg/l) Mar 2030
13004	BISHOPS CANNINGS (ALL CANNINGS)	Hants Avon	1	0.26	26%	✓	0.25
13008	AMESBURY	Hants Avon	1	0.51	51%	✓	0.25
13015	BARFORD ST MARTIN	Hants Avon	2	0.86	43%		2
13066	CHRISTCHURCH	Hants Avon	N/A			✓	0.25
13099	DOWNTON	Hants Avon	1	0.66	66%	✓	0.25
13107	EAST KNOYLE	Hants Avon	1	0.23	23%	✓	0.4
13128	FORDINGBRIDGE	Hants Avon	1	0.64	64%	✓	0.25
13129	FOVANT	Hants Avon	1	0.48	48%		1
13158	HURDCOTT	Hants Avon	1	0.45	45%	✓	0.25
13196	MARDEN	Hants Avon	2	0.76	38%	✓	0.5
13220	NETHERAVON	Hants Avon	1	0.62	62%	✓	0.25
13237	PEWSEY	Hants Avon	1	0.54	54%	✓	0.25
13253	RATFYN	Hants Avon	1	0.35	35%	✓	0.25
13255	RINGWOOD	Hants Avon	1	0.57	57%	✓	0.25
13258	SALISBURY	Hants Avon	1	0.59	59%	✓	0.25
13263	SEMLEY	Hants Avon	N/A			✓	1
13275	SHREWTON	Hants Avon	1	0.67	67%	✓	0.25
13287	STANTON ST BERNARD	Hants Avon	N/A			✓	3
13313	TISBURY	Hants Avon	1	0.32	32%	✓	0.25
13320	UPAVON	Hants Avon	1	0.56	56%	✓	0.25
13325	WARMINSTER	Hants Avon	0.5	0.15	30%	✓	0.25
13353	GREAT WISHFORD	Hants Avon	1	0.47	47%	✓	0.25

Hampshire Avon – nutrient load removed summary

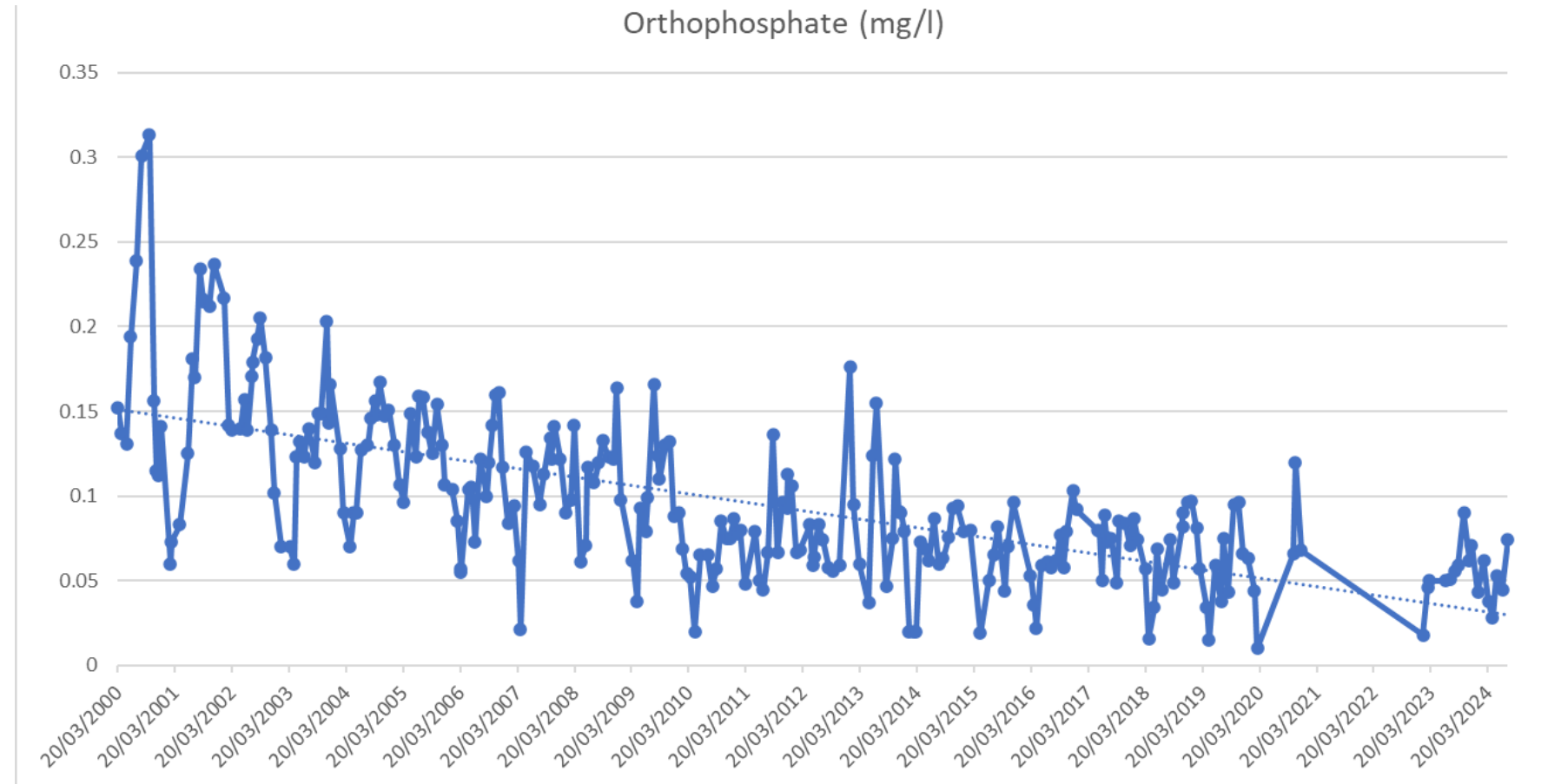
	2000	2020	2025	by 2030
No. of WRCs with Phosphorus (P) permits	0	19	19	23
Approx. % of population discharging to WRC with P permit	0%	74%	74%	98%
Phosphorus load discharged (if at permit)	152 t/yr	62.7 t/yr	61.9 t/yr	9.8 t/yr
Load removed	0%	59%	59%	94%

EA monitoring point on the Hampshire Avon



Hampshire Avon - orthoP trend

- Nutrient stripping schemes, under direction from the EA, have been installed since 2000

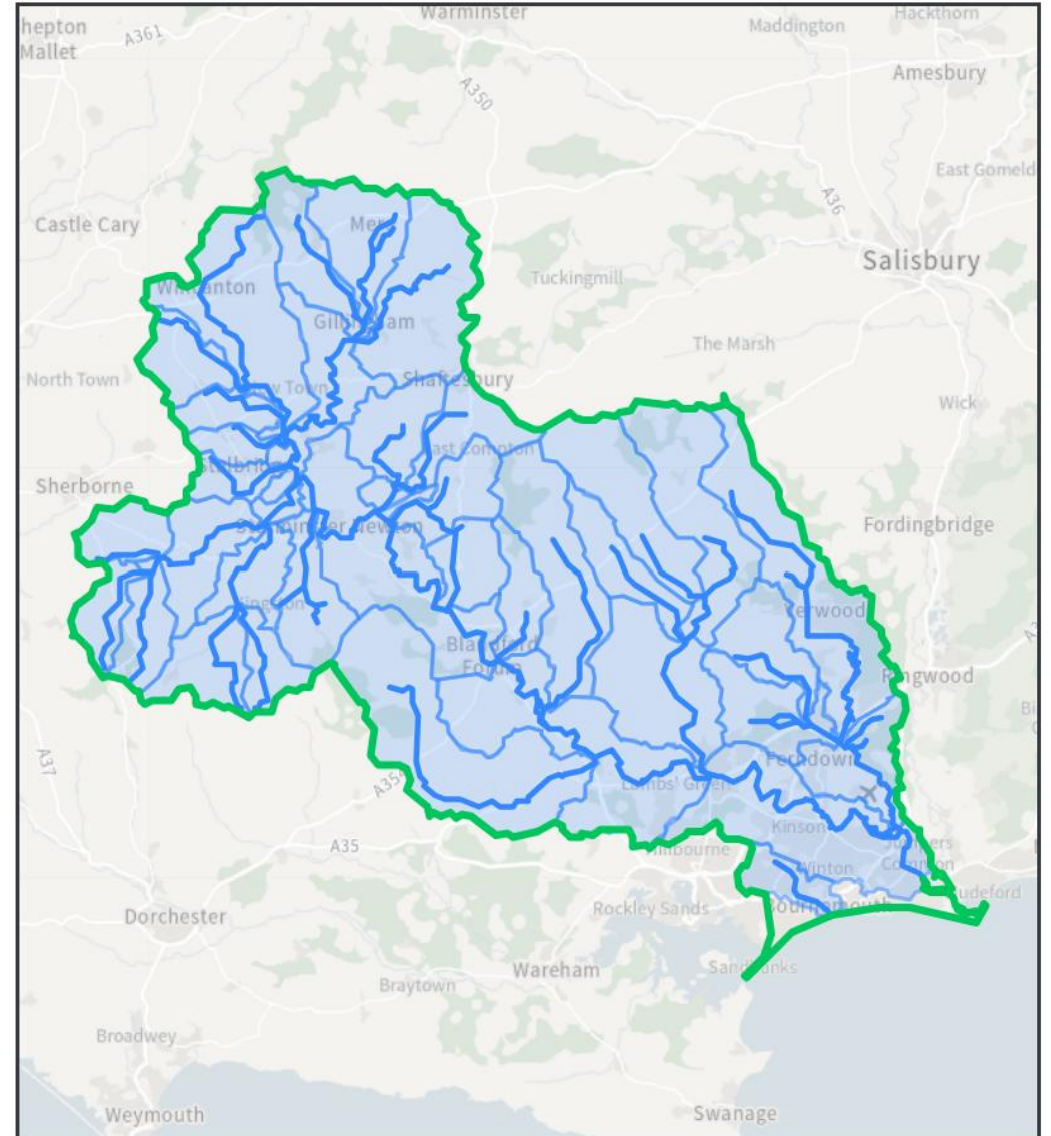


Environment Agency – Hants Avon and Knapp Mill ([Open WIMS data](#))

Dorset Stour



- Introduced Phosphorus (P) removal permits for 6 Water recycling centres (WRCs) in 2015-2020
- Designated as a Nutrient Sensitive River in 2019
- Significant new/tightened P removal for 13 WRCs in 2020-25



Dorset Stour nutrient concentration permits and performance (May 2026)

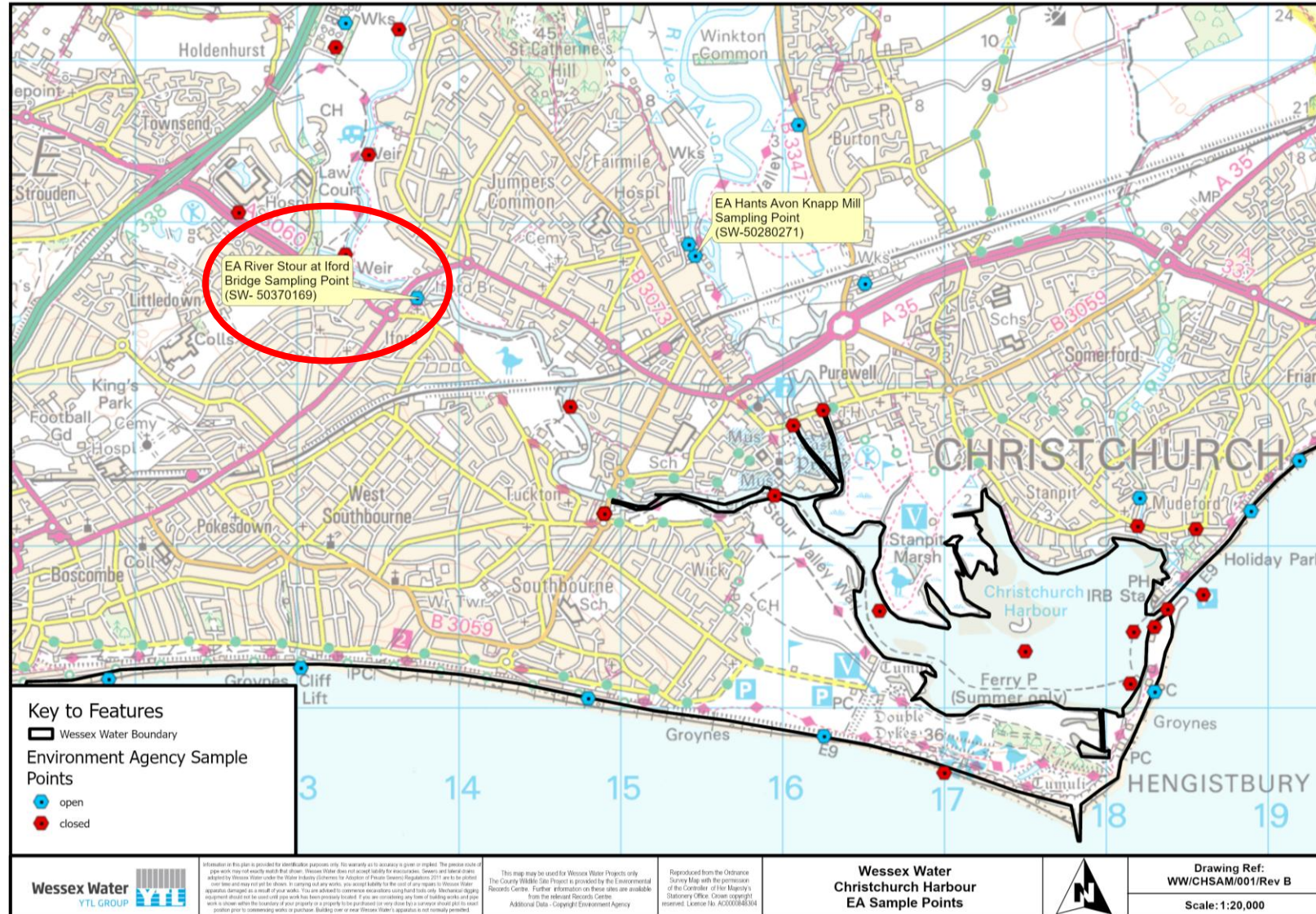
Site ID	Site Name	River Catchment	Permit Limit (mg/l) Mar 2025	Stretch permit Mar 2025	Discharge concentration level (mg/l)	Percentage of permit	Percentage of stretch permit	Further upgrade before 2030?	Permit limit (mg/l) Mar 2030
13027	BOURTON	Dorset Stour	1	0.8	0.24	24%	30%		0.8
13082	CRANBORNE	Dorset Stour	1	0.8	0.74	74%	92.5%	✓	0.4
13132	GILLINGHAM	Dorset Stour	1	0.8	0.42	42%	52.5%	✓	0.6
13146	HAZELBURY BRYAN	Dorset Stour	1.5	0.8	0.12	8%	15%		0.8
13152	HOLDENHURST	Dorset Stour	1	0.65	0.32	32%	49%	✓	0.25*
13163	IWERNE MINSTER	Dorset Stour	1	0.8	0.49	49%	61%	✓	0.25
13172	KINSON	Dorset Stour	1	0.65	0.23	23%	35.5%		0.65
13198	MARNHULL	Dorset Stour	1	0.8	0.26	26%	32.5%		0.8
13199	MARNHULL COMMON	Dorset Stour	1	0.8	0.27	27%	34%		0.8
13207	MERE	Dorset Stour	1	0.8	0.61	61%	76%		0.8
13232	PALMERSFORD	Dorset Stour	1	0.65	0.34	34%	52.5%		0.65
13264	SHAFTESBURY	Dorset Stour	1	0.8	0.36	36%	45%		0.8
13292	STOURTON CAUNDLE	Dorset Stour	1.5		0.33	22%	-		1.5
13297	STURMINSTER NEWTON	Dorset Stour	1	0.8	0.34	34%	42.5%		0.8
13304	TARRANT CRAWFORD	Dorset Stour	1	0.8	0.41	41%	51%		0.8
13306	TEMPLECOMBE	Dorset Stour	1	0.8	0.29	29%	36%	✓	0.4
13349	WIMBORNE	Dorset Stour	1	0.8	0.51	51%	63.5%		0.8
13350	WINCANTON	Dorset Stour	1	0.8	0.51	51%	63.5%	✓	0.3
19031	BUCKLAND NEWTON	Dorset Stour	4		0.84	21%	-	✓	1

*Permit limit for Mar 2033

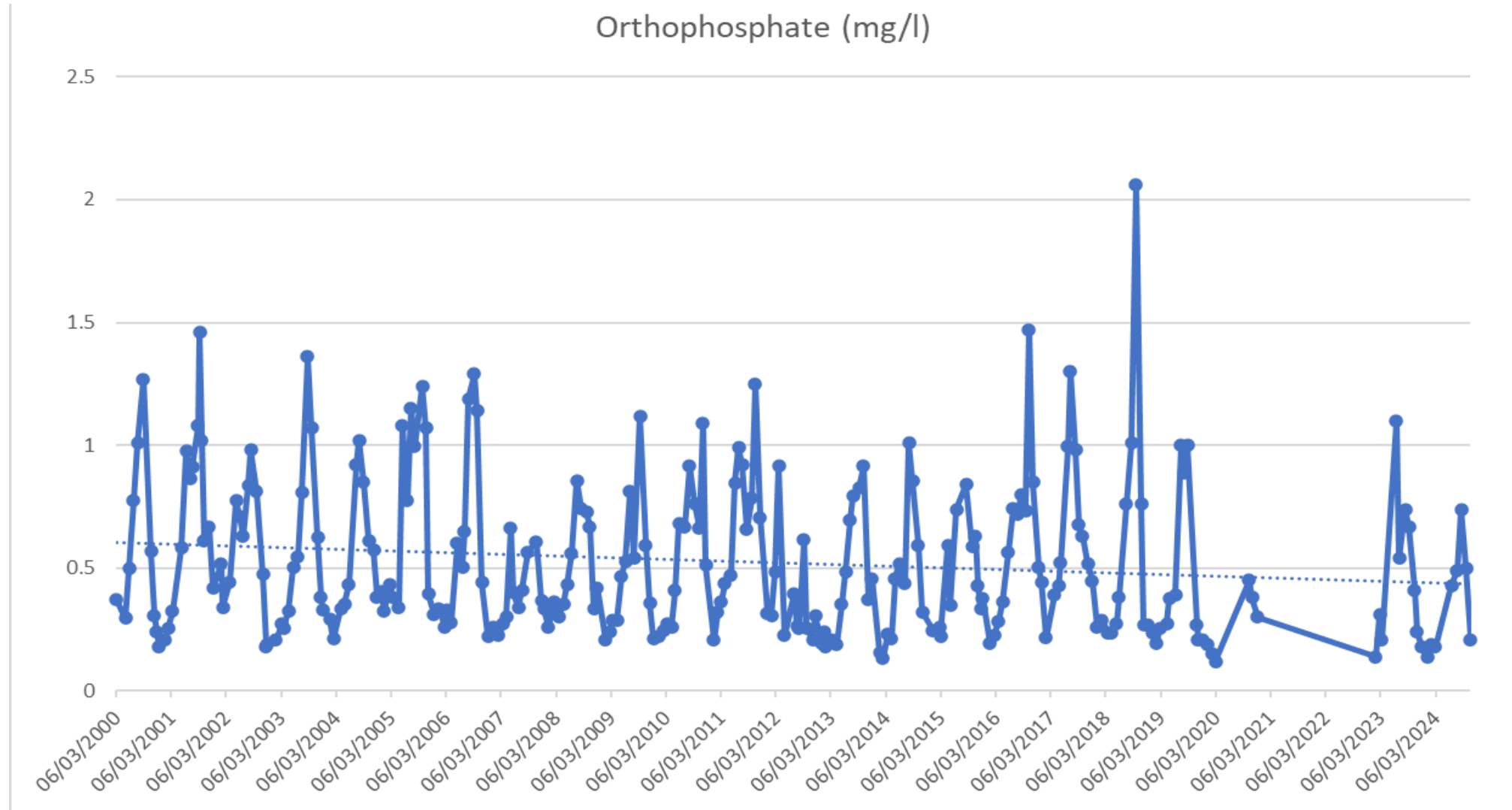
Dorset Stour – phosphorus removal summary

	2015	2020	2025	By 2030
No. of WRCs with Phosphorus permits	0	6	19	19
Approx. % of population discharging to WRC with P permit	0%	7%	96%	96%
Phosphorus load discharged (if at permit)	190t/yr	182.9 t/yr	45.4 t/yr	27.3 t/yr
Load removed	0%	4%	76%	86%

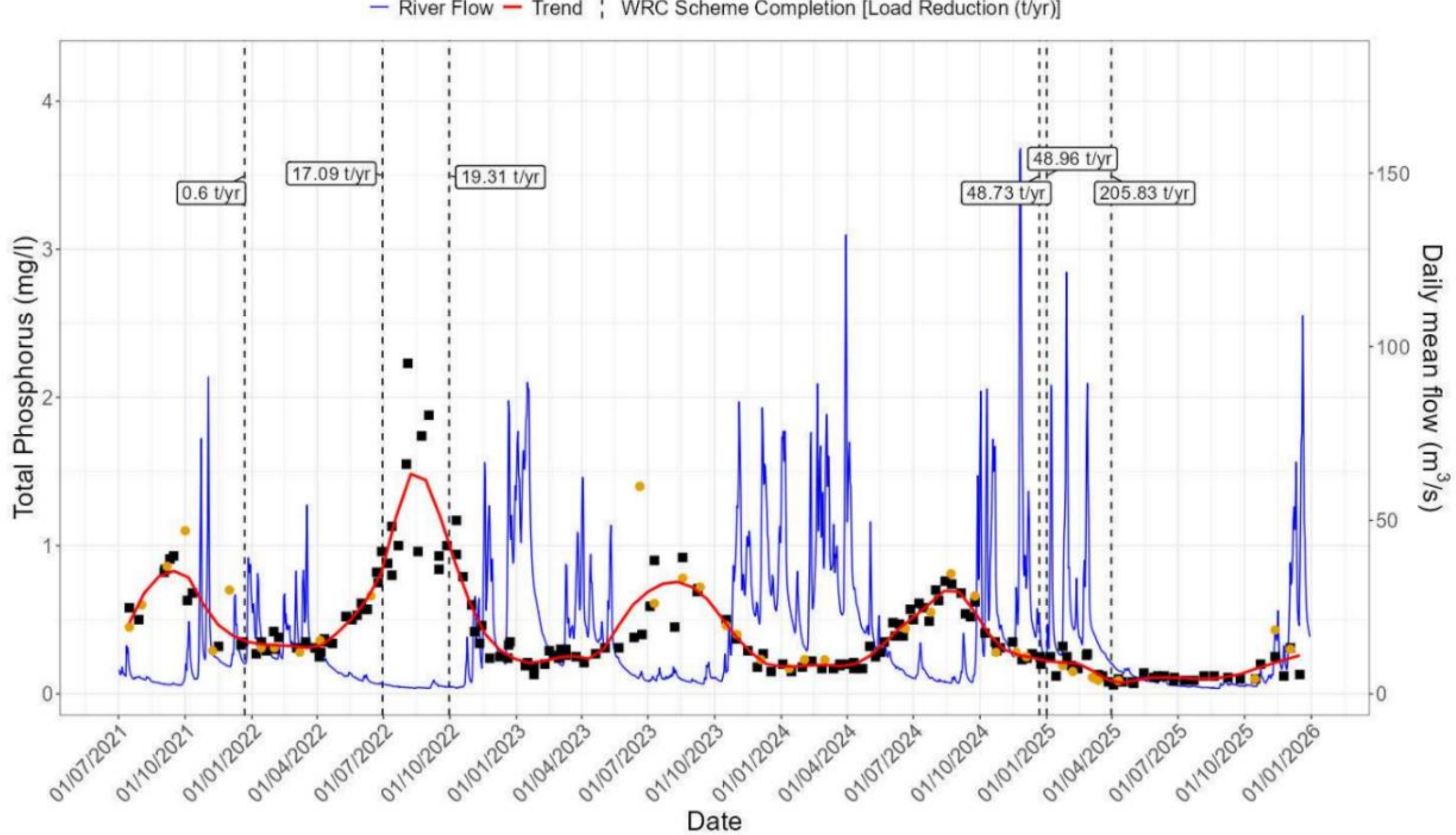
EA monitoring point on the Dorset Stour



Dorset Stour – orthoP trend



Environment Agency - River Stour at Iford Bridge ([Open WIMS data](#))



River Stour Phosphorus Reduction Scheme

We are working with farmers to reduce phosphorus (P) runoff from farmyards, tracks and fields by three tonnes per year by 2025.



- We are also doing [Catchment Nutrient Balancing](#), which is targeting a further c3 t/yr removal through working with farmers.

Working with farmers

- The River Stour Phosphorus Reduction Scheme launched in 2022 and includes a grant scheme offering financial support and advice to farmers for adopting practices that reduce P inputs, prevent soil erosion and buffer watercourses from P pollution.
- A range of measures that reduce P loss to water are available for grant funding. Payment rates and measure specifications are as follows:

Cover crops after combinable crops

£175/ha as a one off payment or £150/ha if less than 80% cover is achieved in December 2024. A key requirement is to establish cover crop by 15 September.

- [Stour cover crops after combinable crops spec \(PDF 206kb\)](#)

Cover crops after maize and other late-harvested crops

Undersowing grass into maize

Arable reversion to zero-input grass

Arable reversion to low/medium input grass

Arable reversion to herbal ley

Arable reversion to fertility building legume fallow

Establish new watercourse buffer strips on arable land

Watercourse fencing to exclude livestock

Grassland subsoiling to loosen compacted soil

Investment to protect public health

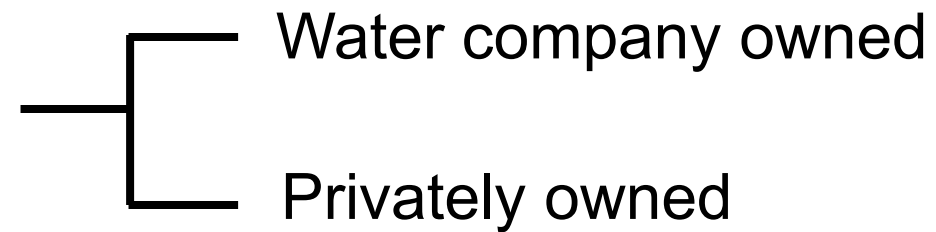
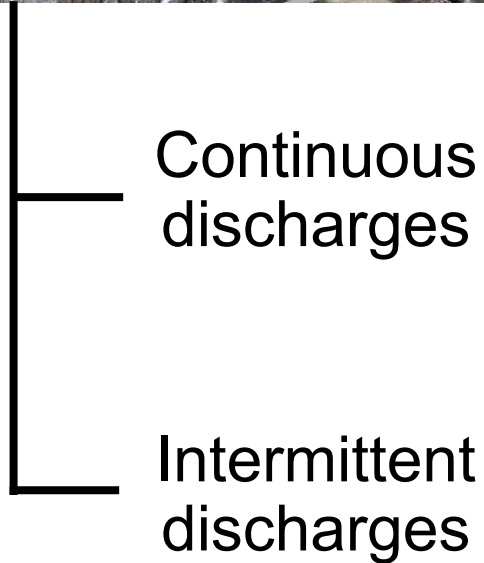
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Coastal Interceptor Sewer (CIS)

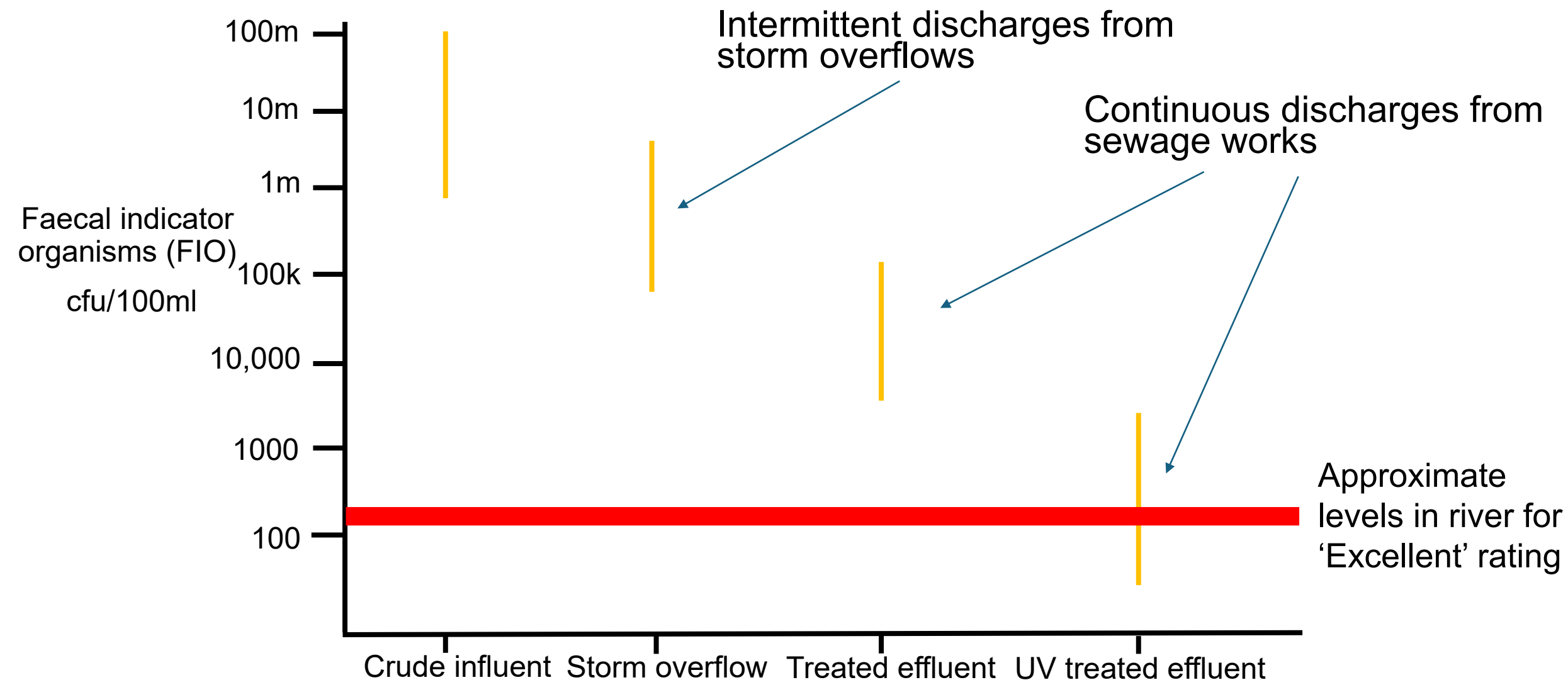


Sources of E.Coli and I.Enterococci

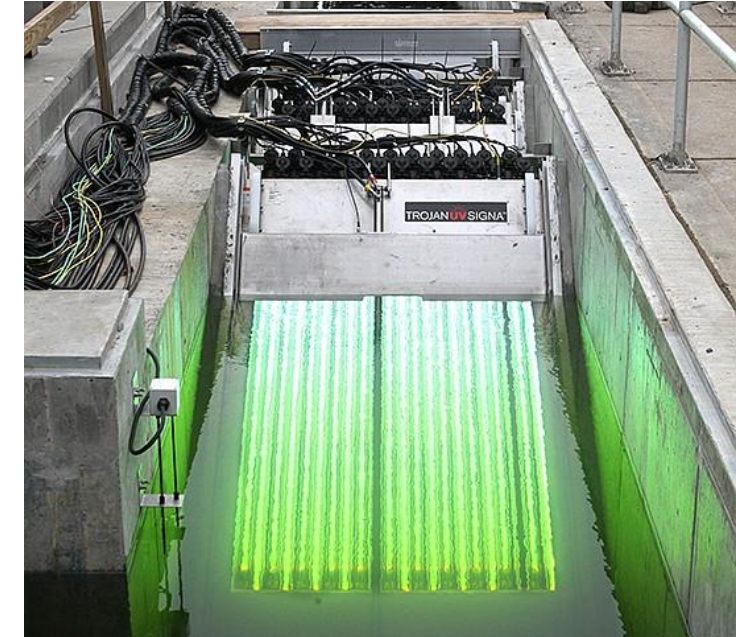
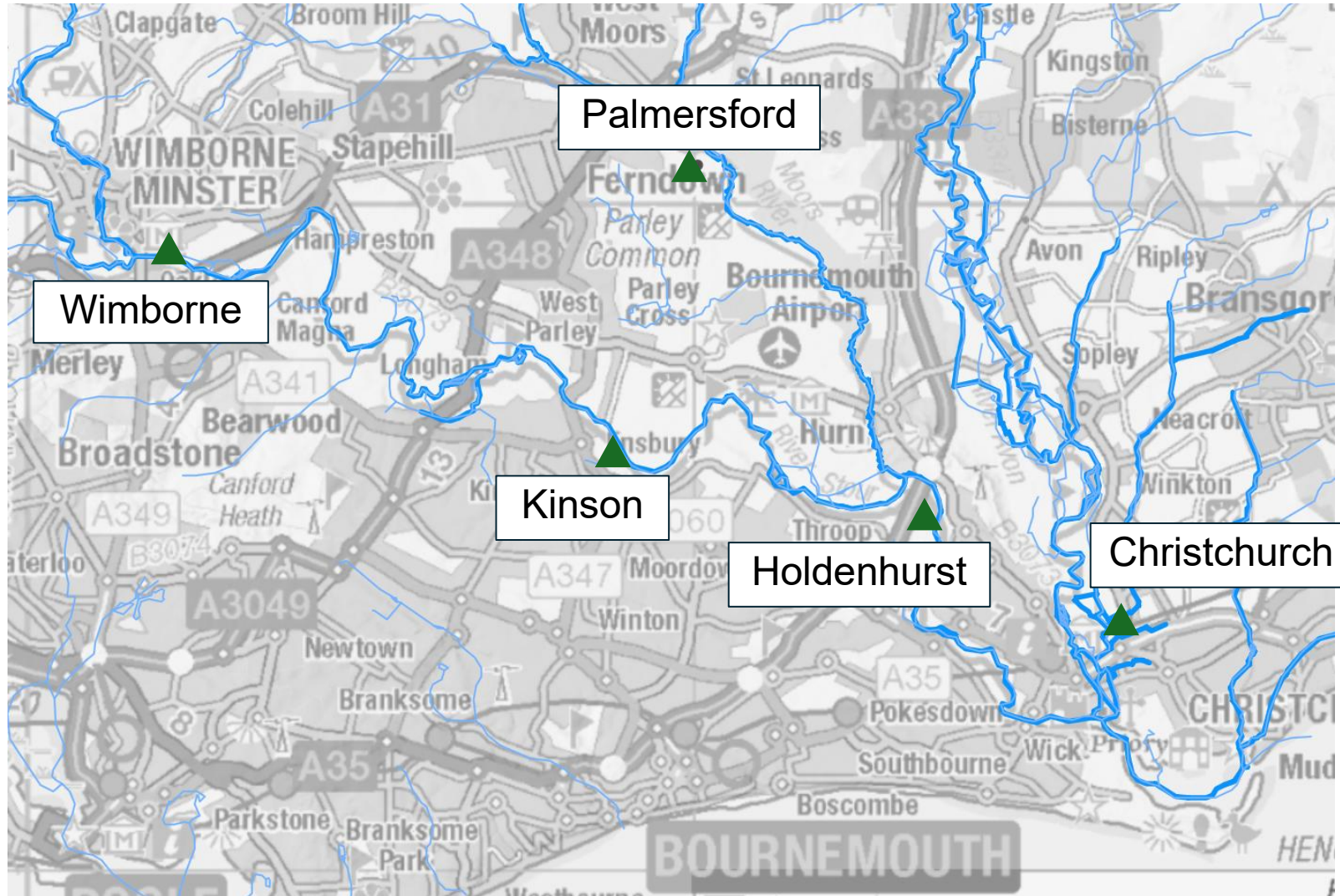


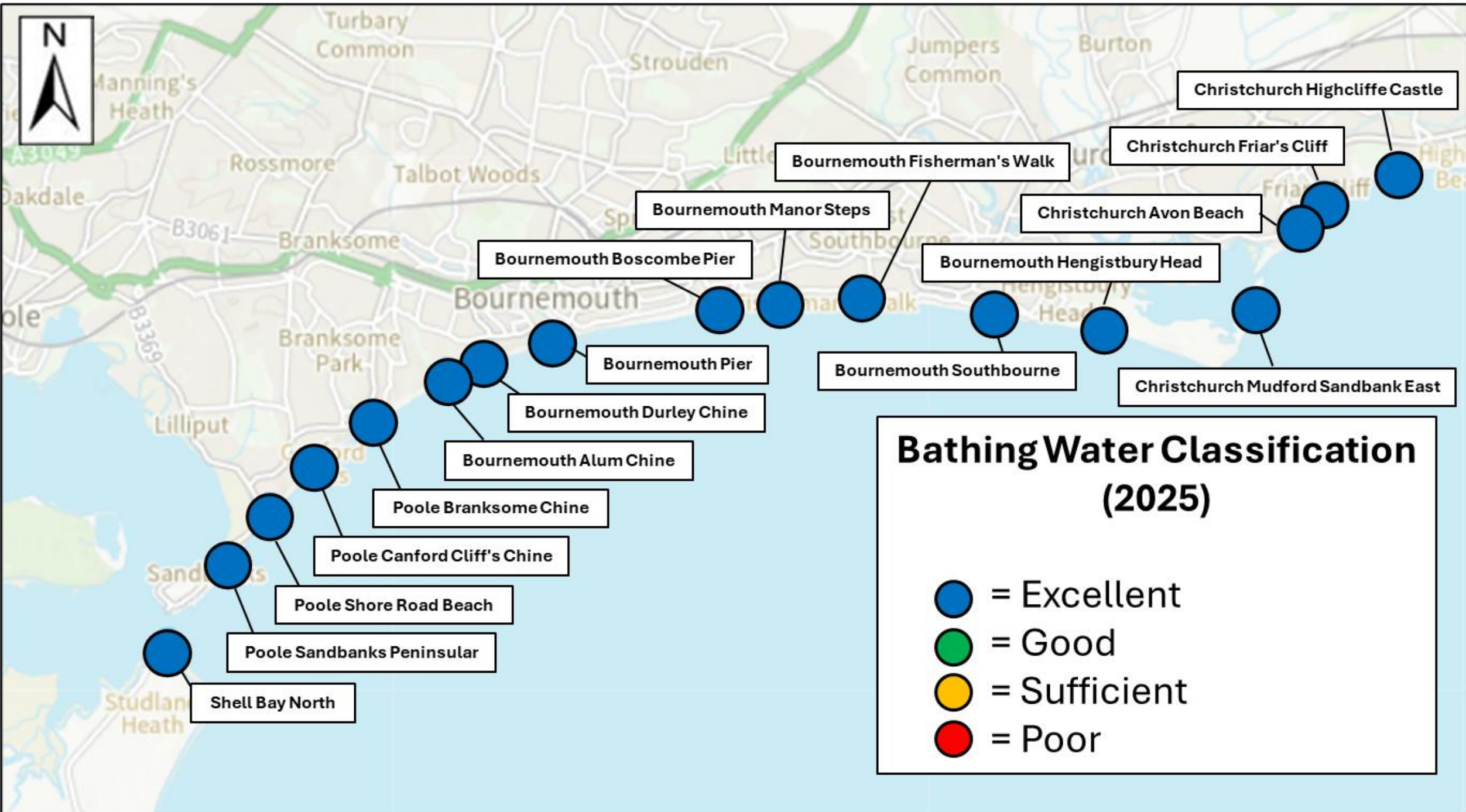
(Storm overflows)

Relative FIO levels at discharges

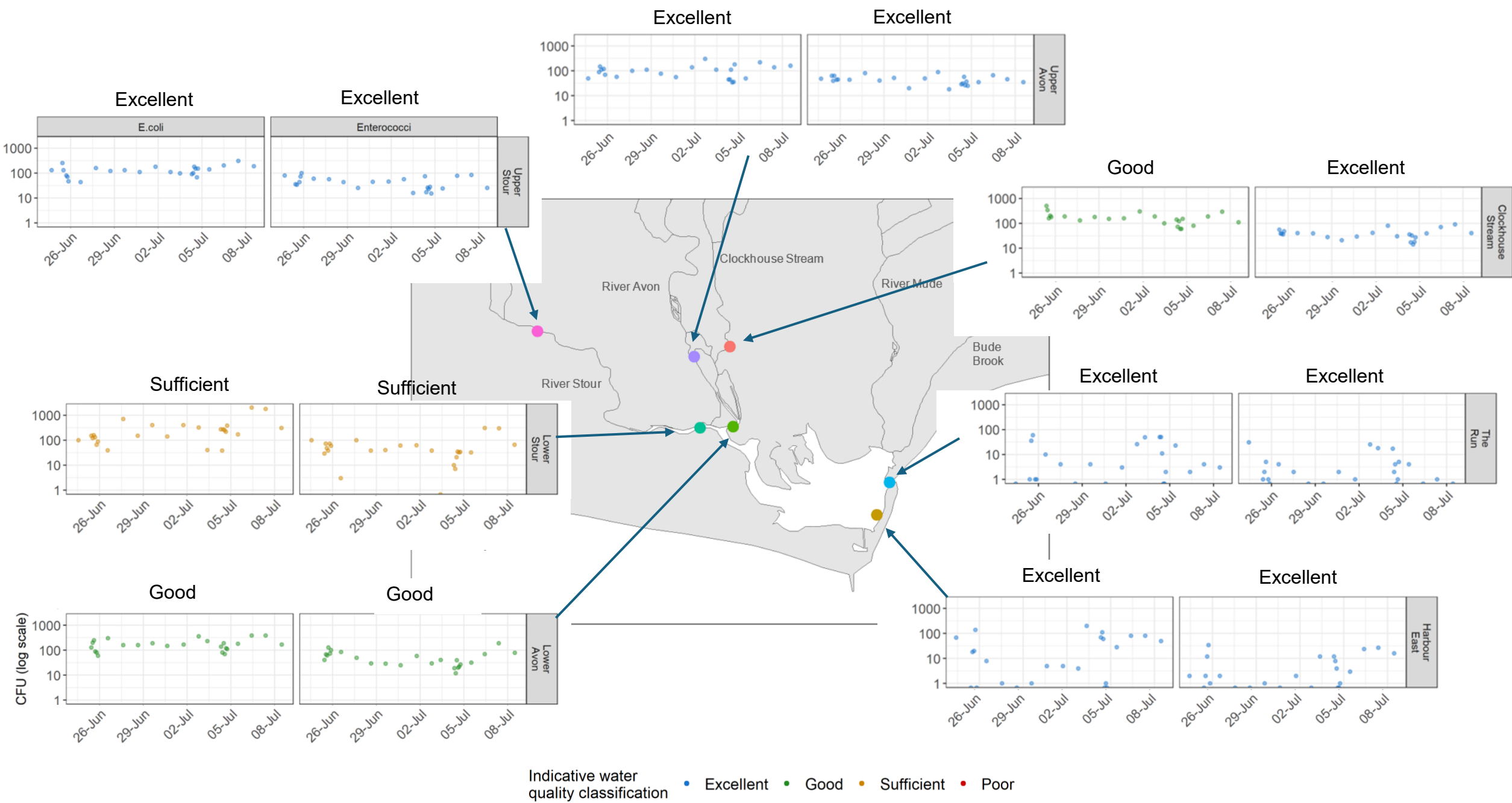


UV treatment



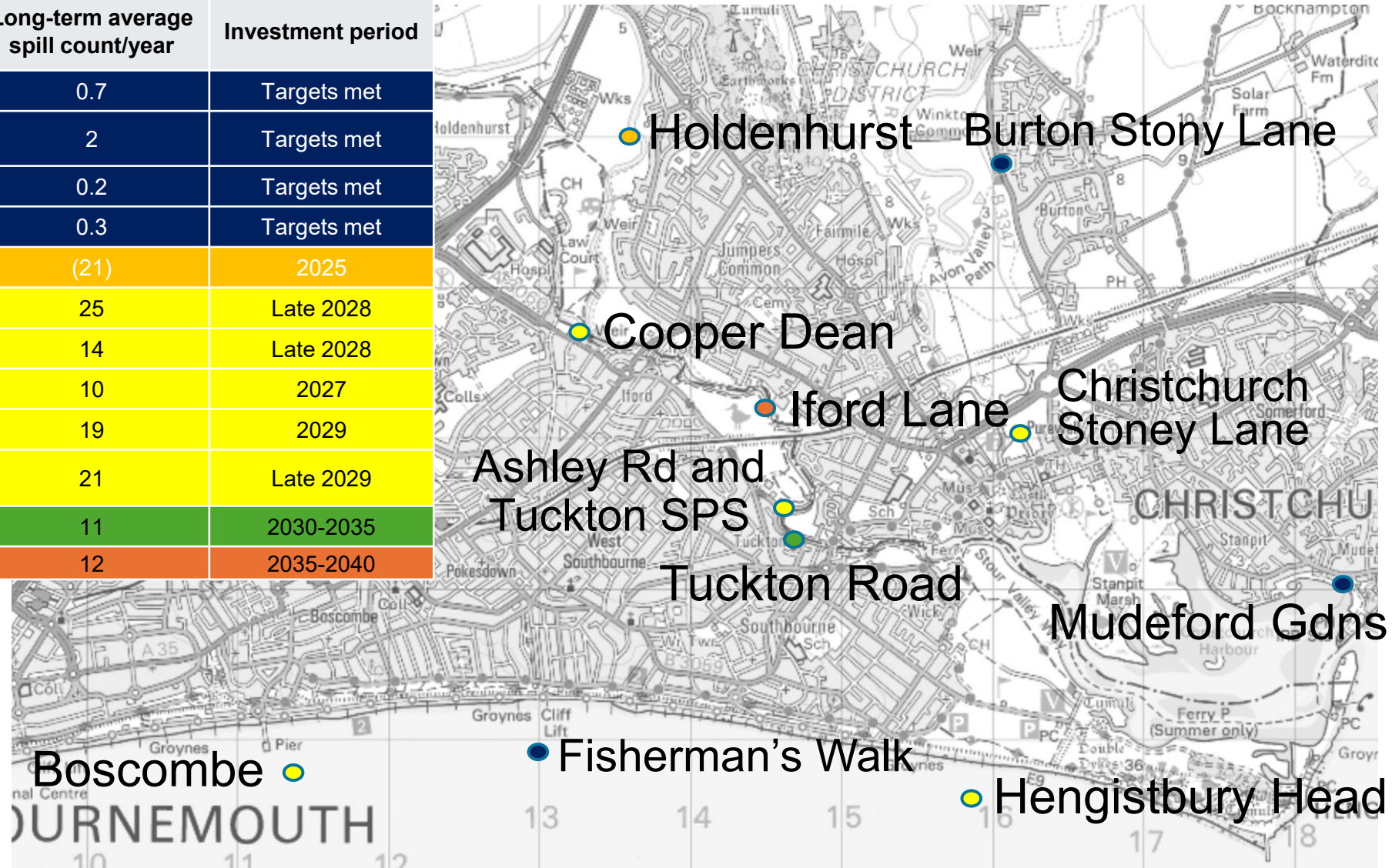


24th June – 8th July 2025 Sampling - Indicative bathing water quality classifications



Storm overflows near Christchurch Harbour and future investment dates

ID	Storm Overflow name	Long-term average spill count/year	Investment period
19266	FISHERMANS WALK	0.7	Targets met
19553	BOURNEMOUTH ASHLEY ROAD JNC WILSON ROAD CSO	2	Targets met
15042	BURTON STONY LANE	0.2	Targets met
15043	MUDEFORD GARDENS	0.3	Targets met
13152	HOLDENHURST	(21)	2025
13066	CHRISTCHURCH STONEY LANE	25	Late 2028
15002	BOSCOMBE NO 1 SPS	14	Late 2028
15007	TUCKTON SPS	10	2027
18015	COOPER DEAN DETENTION TANK	19	2029
15013	HENGISTBURY HEAD	21	Late 2029
16131	TUCKTON ROAD	11	2030-2035
11754	IFORD LANE	12	2035-2040



Find this info here: [Storm Overflow Improvement Dashboard](#)

- Outfall location

Work completed last year



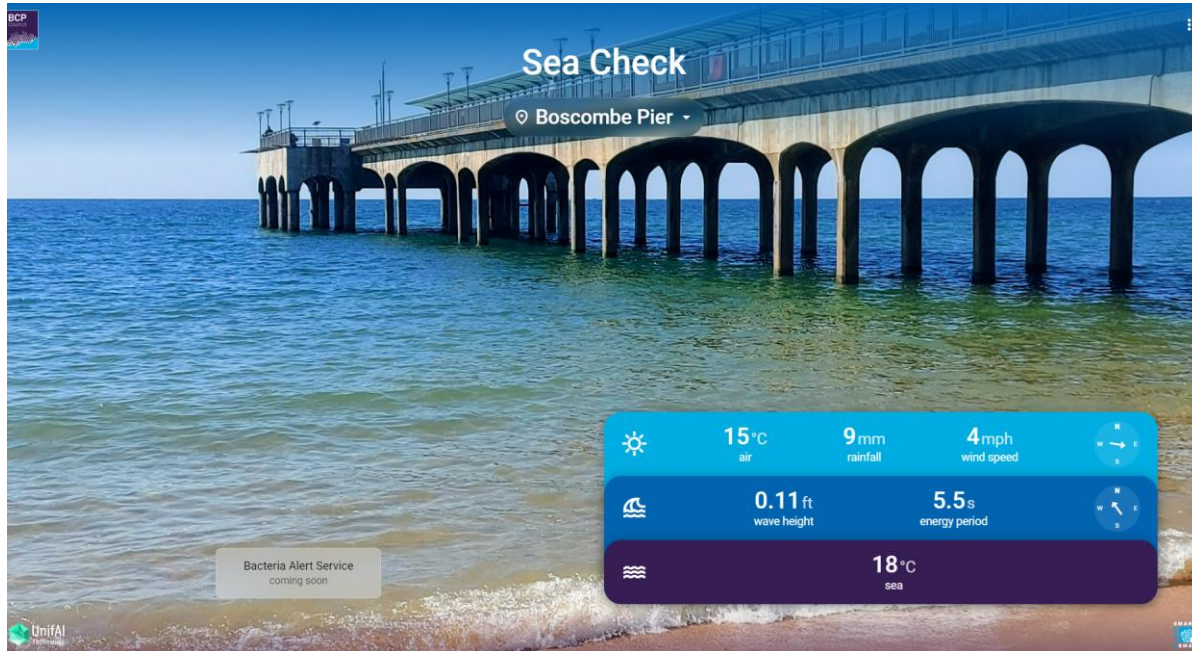
- Holdenhurst sewage treatment works serves about 180,000 people and treats c380 l/s on a normal day and has a max capacity of 1,424 l/s
- There is already 20,800m³ of storage
- Construction of 9,000m³ more to reduce overflows to 2 per bathing season completed last year



Real time water quality monitoring



Boscombe and Bournemouth: buoys deployed again for this bathing water season – receiving data and algorithms learning to predict bacteria levels



Sea Check



Questions

Wessex Water

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