MONITORING OF THE PAR RIVER AND ITS TRIBUTARIES

The monitoring group operates under the citizen science scheme run by the Westcountry Rivers Trust. Comments and opinions in this report are those of the authors only.

AUGUST 2025

A. OUR AUGUST 2025 FINDINGS AT A GLANCE (SEE SECTIONS C TO I FOR FULL PICTURE)

1. Data

We sampled at 15 locations between 11th and 14th August 2025. The **red** highlighting shows results of concern. Unfortunately, it was impossible to monitor the Treskilling Stream.

CRITERIA	UPPER PAR (UPSTREAM OF CONFLUENCE WITH BOKIDDICK STREAM NEAR BLACK HILL CAR PARK) 5 TESTING LOCATIONS	LOWER PAR (FROM CONFLUENCE WITH BOKIDDICK STREAM TO SEA) 3 TESTING LOCATIONS	TRIBUTARIES OF UPPER PAR (BOKIDDICK STREAM ONLY) 3 TESTING LOCATIONS	TRIBUTARIES OF LOWER PAR (POLMEAR & TYWARDREATH STREAMS) 2 TESTING LOCATIONS
TEMPERATURE ˚ CELSIUS (SHOULD NOT EXCEED 18˚ CELSIUS)	Mean **18.14** Median **18.5** Min 16.8 **Max 19**	Mean **19.53** Median **19.6** Min **19.4** Max **19.6**	Mean 17.66 Median **18.5** Min 15.5 Max **19**	Mean **18.4** Median **18.4** Min 18 Max **18.8**
TOTAL DISSOLVED SOLIDS PPM (SHOULD NOT EXCEED 300 PPM)	Mean 135 Median 118 Min 55 Max 252	Mean 197 Median 199 Min 182 Max 210	Mean 70 Median 71 Min 65 Max 74	Mean 98 Median 98 Min 64 Max 132
TURBIDITY (SHOULD BE <12 ON SECCHI TUBE. FOR AVERAGING ANY READING <12 IS COUNTED AS 0)	Mean 0 Median 0 Min 0 Max 0	Mean 0 Median 0 Min 0 Max 0	Mean 0 Median 0 Min 0 Max 0	Mean 0 Median 0 Min 0 Max 0
PHOSPHATES PPB (SHOULD NOT EXCEED 100 PPB)	Mean **220** (**700****) Median 0 (0**) Min 0 (0**) Max **1000** (**2500****)	Mean **1500** Median **1000** Min **1000** Max **2500**	Mean 0 Median 0 Min 0 Max 0	Mean 50 Median 50 Min 0 Max 100
NITRATES (SHOULD NOT EXCEED 50 PPM)	Mean 0 Median 0 Min 0 Max 0	Mean 0 Median 0 Min 0 Max 0	Mean 0 Median 0 Min 0 Max 0	Mean 0 Median 0 Min 0 Max 0
RIVERFLY SCORE (TRIGGER LEVEL AT LRM SHOULD BE ≥ 6)	Lower Par (Lady Rashleigh Mine). Score = 6. Trigger level = 6.			
KEY WILDLIFE (WRT KEY SPECIES ONLY* – FOR FULL LIST SEE SECTION I)		Otter spraint, Heron, Dragonflies	Beaver lake.	
INVASIVE PLANTS	Himalayan Balsam, Hemlock Water Dropwort, Japanese Knotweed	Hemlock Water Dropwort	Hemlock Water Dropwort	Hemlock Water Dropwort

***The WRT monitoring forms highlight: Water Vole; Heron; Dipper; Otter (live sighting); Kingfisher; Dragonflies/Damselflies; Mink; Grey Wagtail; Fish; 'Other' . Beavers aren't stipulated but could, for example, be considered a key species under 'Other'. It is in this latter category that indirect evidence of otters, such as spraint, is included.**

** A further reading of 2500 PPB was made at Luxulyan allotments at 16:30. The figures in brackets incorporate this later reading.

2. Key points

(a) Positive signs

(i) The riverfly survey at Lady Rashleigh Mine on the Lower Par met the trigger level.

(ii) There were some interesting wildlife sightings, such as a heron and dragonflies (Par Beach), old otter spraint in Luxulyan Valley, numerous bird calls picked up by the Merlin app, notably in the vicinity of the lake created by beavers on the Upper Bokiddick Stream.

(iii) In addition to the support for our work from Councillor Sarah Preece, Anna Gelderd, who is M.P. for South East Cornwall, has been in contact with us to offer thanks for the work we have been doing. Additionally, she has recently written to South West Water about repeated discharges at Combined Sewer Outflow sites, asking for 'clear information on their response, investment plans and the steps they're taking to reduce pollution in our area'. She is unwilling to accept 'vague replies or delays'. Noah Law, M.P. for St Austell and Newquay, is also concerned about river and bathing water issues.

(b) Points of concern

(i) For the second month running, on the Lower Par River the maximum readings for phosphates (2500 PPB) were recorded, prompting a report to the Environment Agency using the online reporting facility at https://www.gov.uk/report-water-pollution.

(ii) Although the ARMI riverfly trigger level was met, making it unnecessary to make a report to the Environment Agency, it was only just achieved, with only 5 of the 8 species detected.

(iii) As is usually the case, an unpleasant smell was noted on the main Par River from Cam Bridges down through Luxulyan Valley.

(iv) We take as a guideline a temperature exceeding 18˚ Celsius as being potentially harmful to river life. (The Yem River group in Devon uses 19˚ Celsius.) Of the 15 sites monitored this month, temperatures exceeding 18˚ Celsius were recorded at 11 (one was 18˚ and two lower ones may have been so because they were recorded early in the morning). By themselves these figures prove nothing but they may reflect the increasing global temperatures being recorded worldwide by reputable scientists (and being ignored equally widely by the majority of politicians and denied altogether by some).

(c) Areas for further research

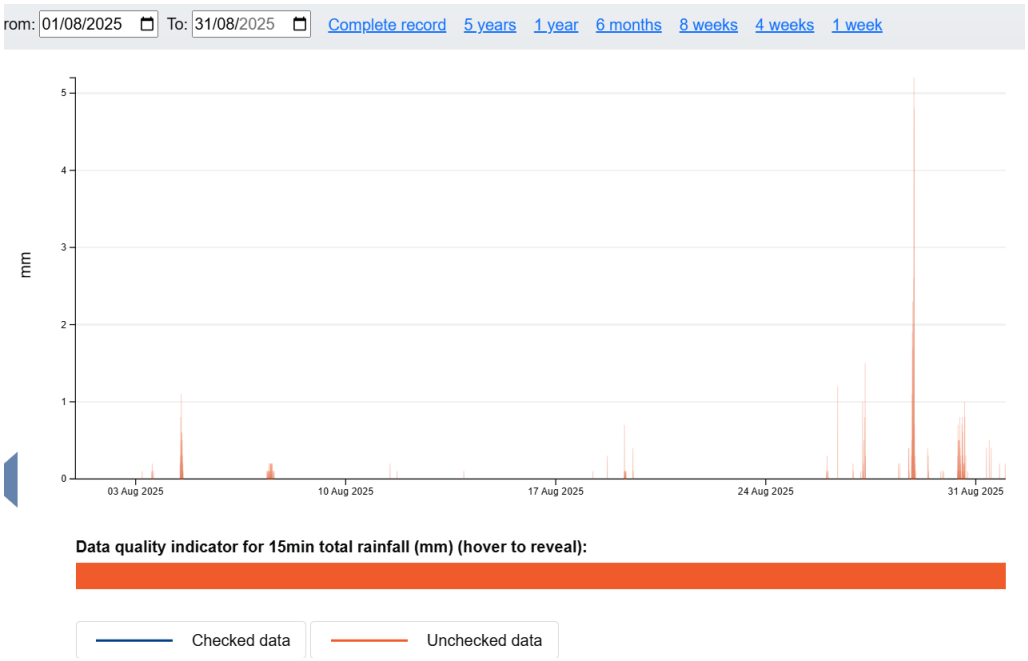
It is assumed that the phosphate levels are raised significantly by discharges from the St Austell North STW at Luxulyan. Once again, levels were concerning. But there was one oddity this time. At 11 a.m. on 13th August, the level recorded at Luxulyan allotments, the first monitoring point downstream from the STW, was 100 PPB. This was so unusual, given the low water level, that the test was repeated immediately, with the same result. Following the very high readings made downstream in the afternoon, Joan Farmer returned to the allotments at 4:30 and got a reading of 2500 PPB, which was consistent with the others. Undoubtedly, with a test relying on interpretations of the colour of the water sample, it is inexact; yet, it is pretty reliable in distinguishing between high and low levels of phosphate.

Therefore, the very low morning reading and very high one in the evening may be taken as correct, in which case does this indicate that discharges from the STW are episodic rather than continuous?

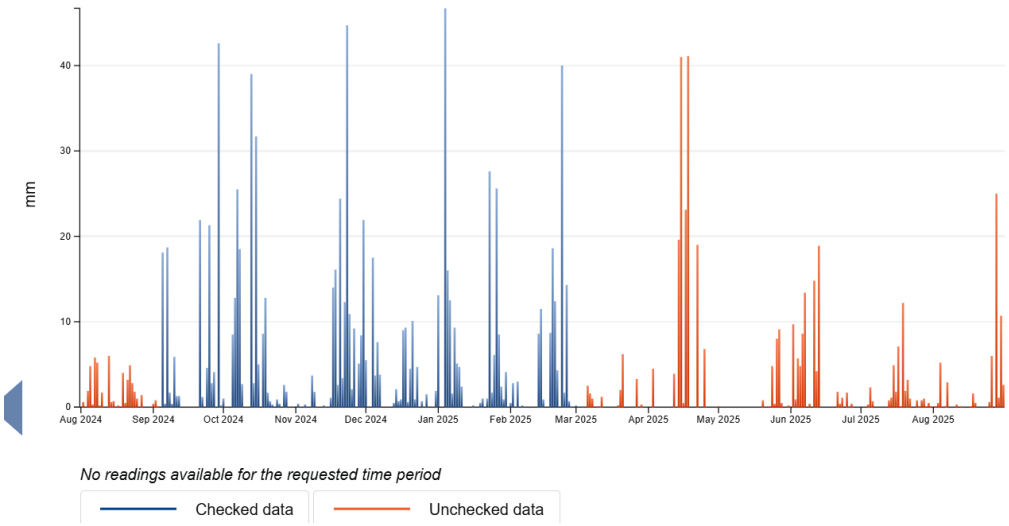
B. RAINFALL, RIVER LEVELS AND FLOW

1. Rainfall at Luxulyan (https://environment.data.gov.uk/hydrology/station/14aadf3c-3d4d-44b3-b26b-cf705827d00e_377323)

(a) August 2025

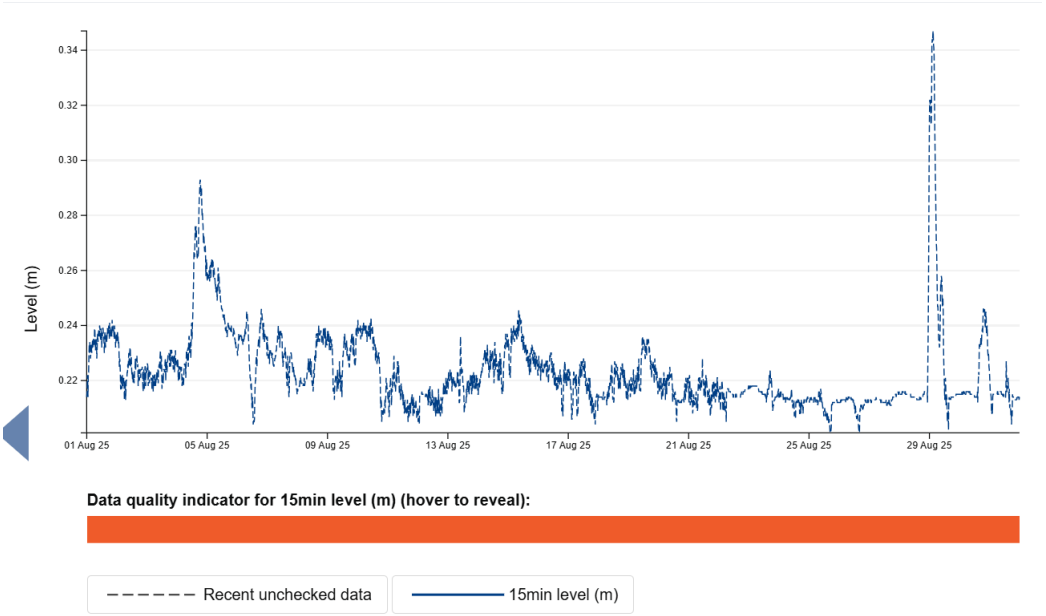


(b) From 1st August 2024 until 31st August 2025

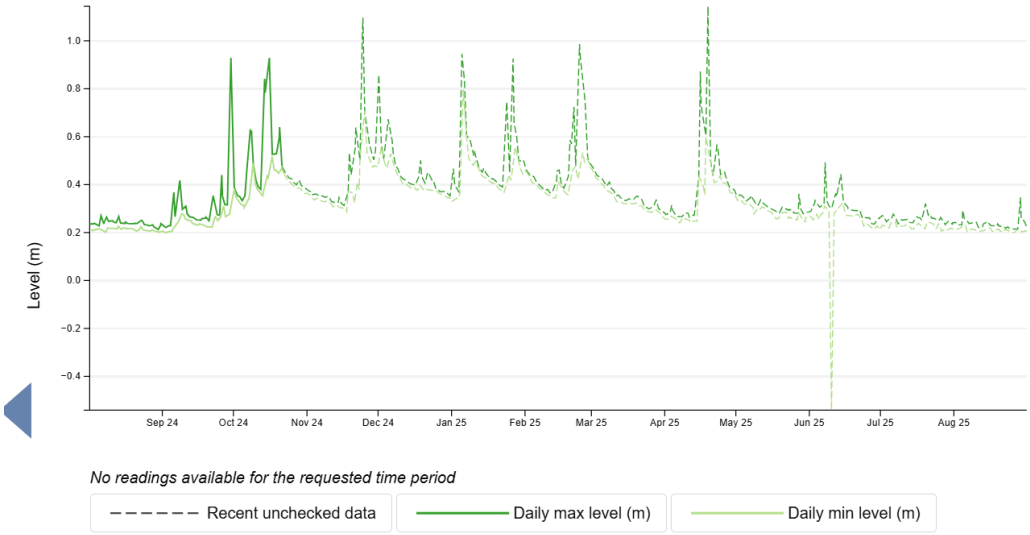


2. Par River levels at Luxulyan preceding and during surveys. Source: https://environment.data.gov.uk/hydrology/station/14aadf3c-3d4d-44b3-b26b-cf705827d00e

(a) August 2025



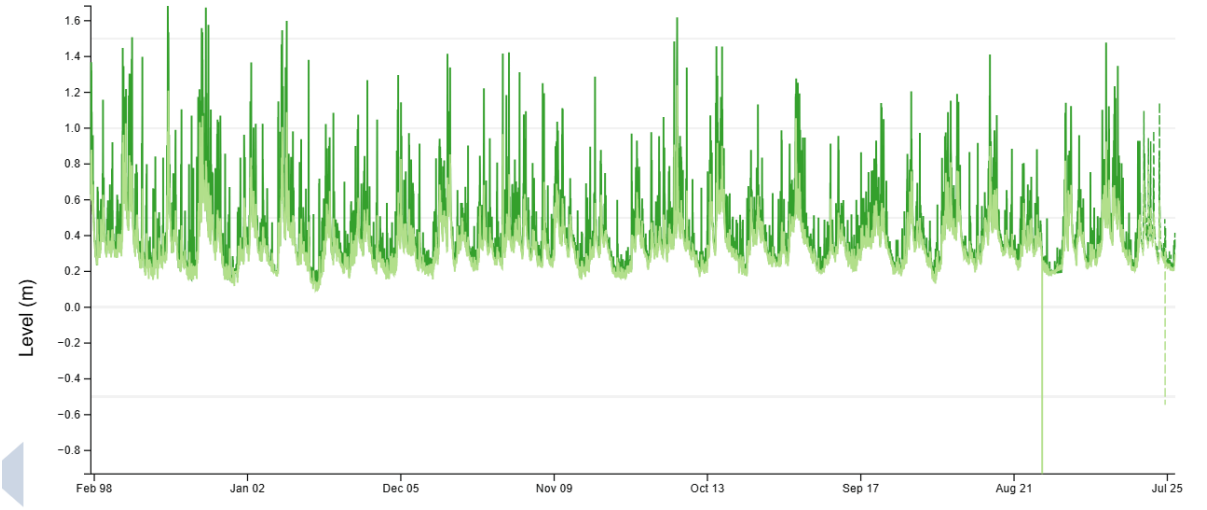
(b) From 1st August 2024 until 31st August 2025



(c) How levels at Luxulyan could affect nearby areas:

1.80m	Property flooding is possible above this level. One or more flood warnings may be issued
1.68m	Water reaches the highest level recorded at this measuring station (recorded on 19 December 1999)
1.40m	Low lying land flooding is possible above this level. One or more flood alerts may be issued
	This is the top of the normal range

(d) Complete record of river levels at Luxulyan. Refer to level descriptions in previous section.



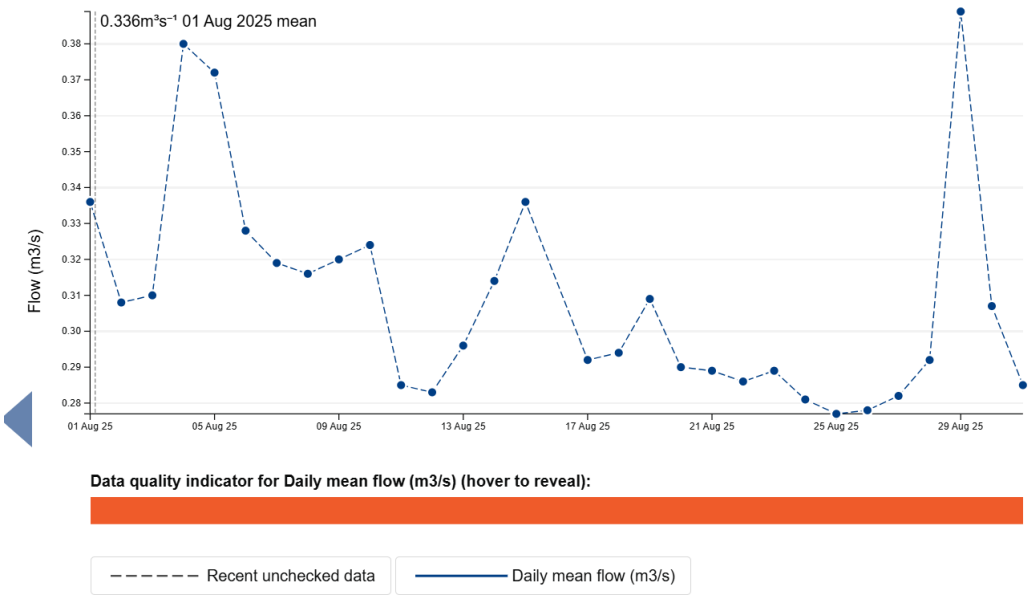
No readings available for the requested time period

Recent unchecked data | Daily max level (m) | Daily min level (m)

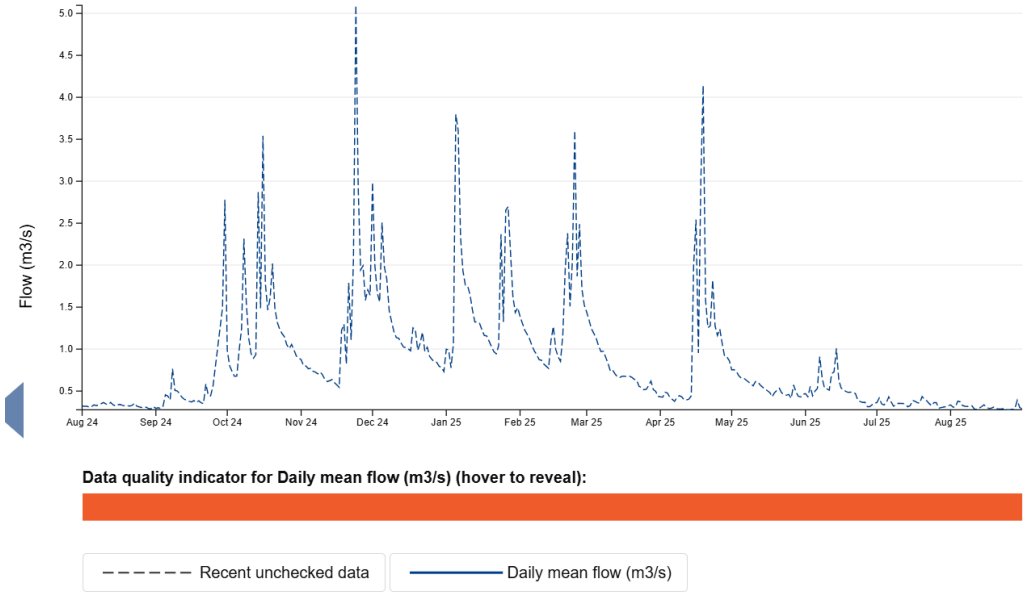
3. RIVER FLOW AT LUXULYAN (Daily Mean Flow in M3/s – cubic metres per second):

Source: https://environment.data.gov.uk/hydrology/station/d58ffa6f-8f0d-4626-b7a1-23de1774b470

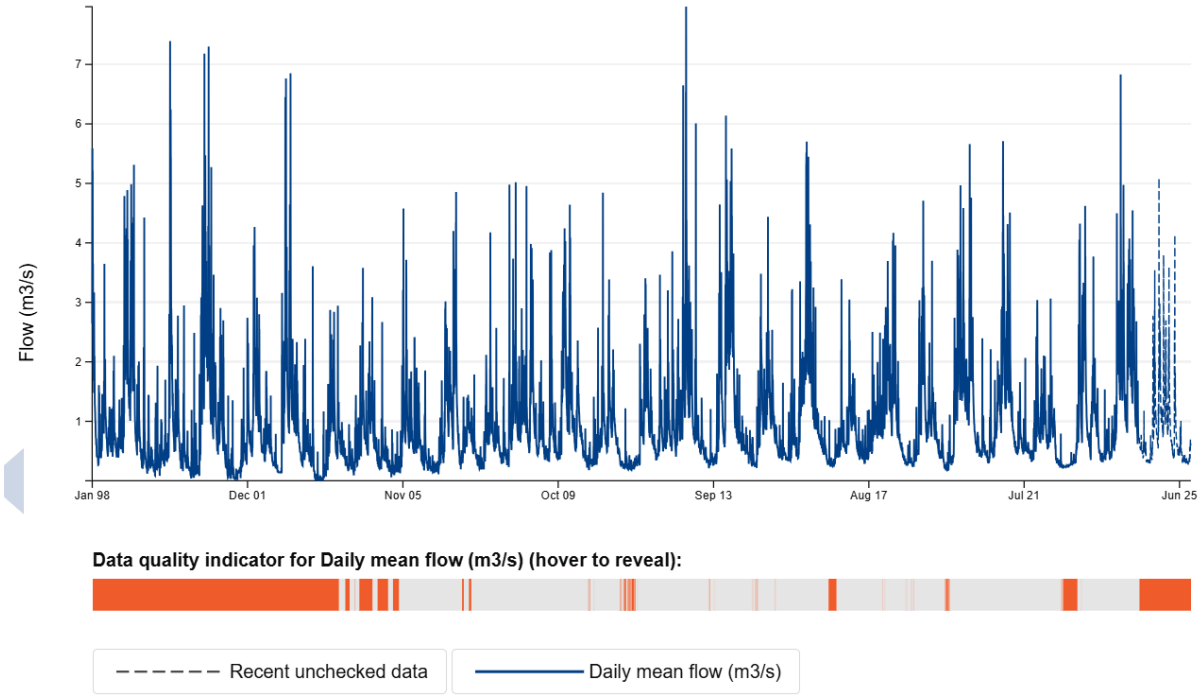
(a) August 2025 (N.B. Some data unchecked):



(b) From 1st August 2024 until 31st August 2025



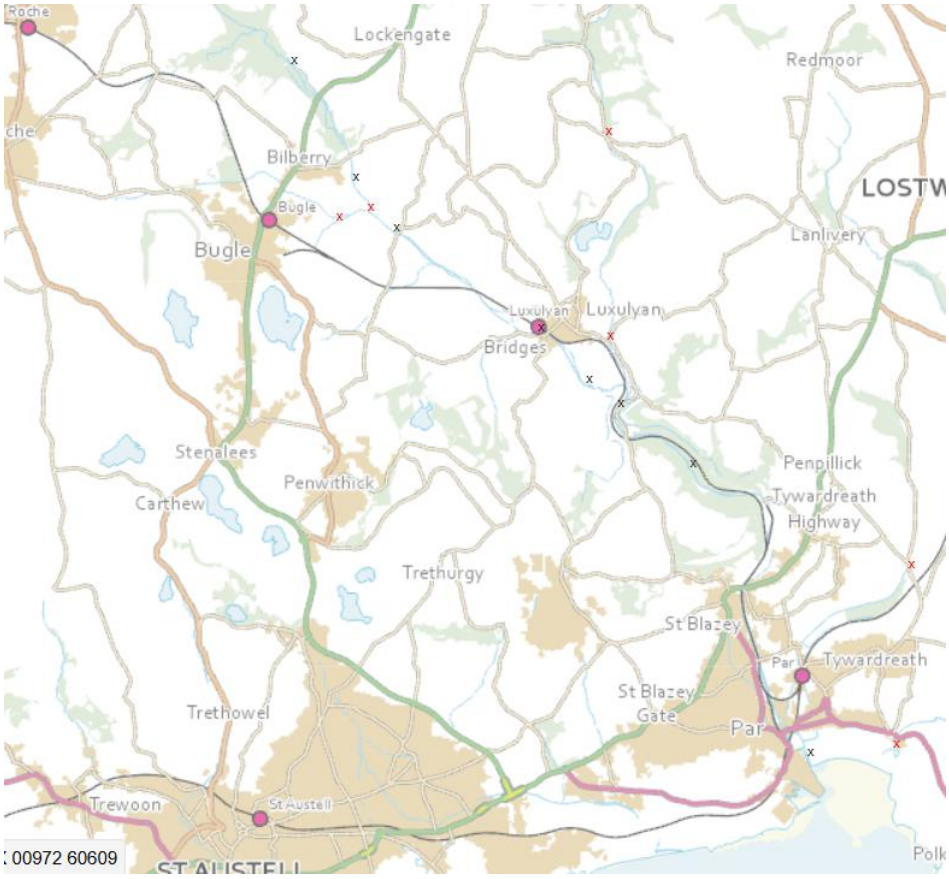
(c) Complete record of river flow at Luxulyan



4. The graphs in sections 1 to 3 are taken from Hydrology Data Explorer (https://environment.data.gov.uk/hydrology/explore). Data for Luxulyan and Par St Andrews are used here. Other stations in the Par catchment include: Ponts Vale, Par Highways, Treesmill Dam Public Footpath, Treesmill Dam Marsh Villa Gardens, and St Blazey (rainfall only). It is possible to check daily Par River levels for Luxulyan, Ponts Vale and St Blazey Station Stream at St Blazey Station Road at: https://check-for-flooding.service.gov.uk/river-and-sea-levels/rloi/3159 .

C.AUGUST 2025 MONITORING POINTS

This month monitoring occurred at 15 locations. Monitoring points along the main Par River are shown in black. Those in red are on tributaries. **Source:** https://magic.defra.gov.uk/MagicMap.aspx



LOCATION	PAR/TRIBUTARY	DATE/TIME	TYPE OF CHECK	MONITORED BY
Criggan Moors, Par River, SX 01882 61133	**PAR**	13/8/2025 8:30	CSI sample & Cartographer record.	Roger Smith
South of Minorca Lane, Par River, SX02668 59747	**PAR**	13/8/2025 7:45	CSI sampling. Cartographer record.	Roger Smith
Near Forkandles Farm, Molinnis Stream, SX 02460 59271	**SECONDARY TRIBUTARY (OF CARBIS STREAM)**	13/8/2025 9:40	CSI sample & Cartographer record.	Roger Smith
Carbis Stream SX 02834 59401	**TRIBUTARY**	13/8/2025 9:20	CSI sampling. Cartographer record.	Roger Smith
Lavrean, Par River SX 03134 59164	**PAR**	13/8/2025 10:05	CSI sampling. Cartographer record.	Roger Smith
Treskilling, Treskilling Stream, SX 04107 57726	**TRIBUTARY**	Not checked		
Luxulyan allotments, Par River, SX 04732 58045	**PAR**	13/8/2025 11:00 (RS) 16:30 (JF)	CSI sampling. Cartographer record.	Roger Smith Joan Farmer
Cam Bridges, Par River, SX 05292 57454	**PAR**	13/8/2025 13:00	CSI sampling. Cartographer record.	Roger Smith
Trebell Green, Bokiddick Stream SX 0551960226	**TRIBUTARY**	11/8/2025 9:50	CSI sampling. Cartographer record.	Roger Smith
Corgee Moor, Bokiddick Stream SX 0593462167	**TRIBUTARY**	11/8/2025 10:40	CSI sampling. Cartographer record.	Roger Smith
Gatty's Bridge, Bokiddick Stream SX 05531 57953	**TRIBUTARY**	13/8/2025 16:10	CSI sampling. Cartographer record.	Joan Farmer
Treffry Viaduct, Par River, SX 05650 57179	**PAR**	13/8/2025 15:50	CSI sampling. Cartographer record.	Joan Farmer
Lady Rashleigh Mine, Par River, SX 06451 56509	**PAR**	13/8/2025 14:10	CSI sampling. Cartographer record.	Joan Farmer, Veronica Jones, Roger Smith
Treesmill, Tywardreath Stream, SX 08873 55385	**TRIBUTARY**	14/8/2025 15:10	CSI sampling. Cartographer record. Riverfly.	Roger Smith
Par Beach slipway, SX 0776 53261	**PAR**	13/8/2025 16:00	CSI sampling. Cartographer record.	Brian Harrisson
Polmear Stream, Ship Inn SX 08749 53417	**TRIBUTARY**	13/8/2025 16:50	CSI sampling. Cartographer record.	Brian Harrisson

D. THIS MONTH IN PICTURES

1. The phosphate test at the Treffry Viaduct (Lower Par) showed the maximum level so the Environment Agency was informed.

2. Old otter spraint on the Lower Par near Lady Rashleigh Mine.

3. River levels were very low, as was the case by the Treffry Viaduct on the Lower Par River.

Photo: Joan Farmer

4. The Par River just before it reaches the bathing waters at Par Beach.

Photo: Brian Harrisson

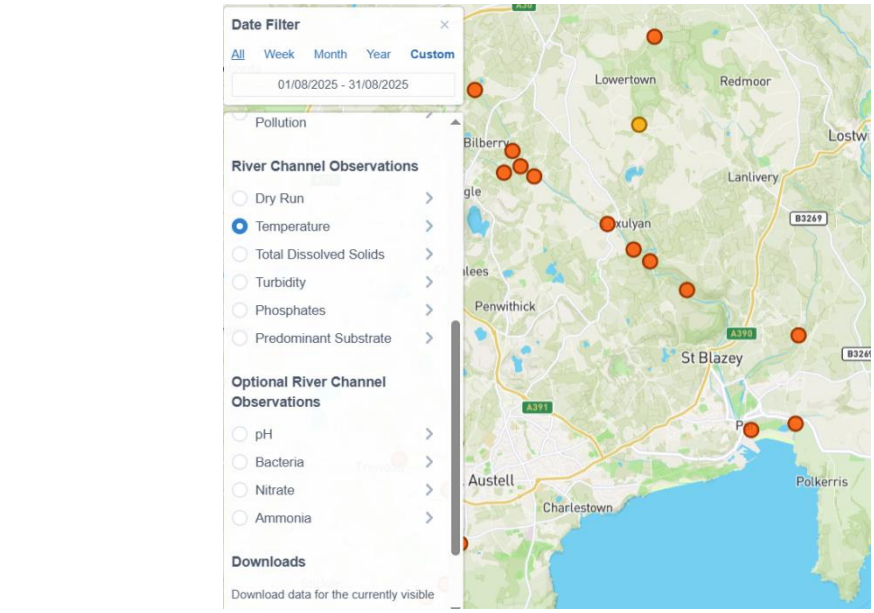
5. Crossing the Carbis Stream in the absence of the bridge, which should carry the public footpath, has been interesting and sometimes slightly hazardous for some years. Recently, this means of crossing has appeared, slightly shaky but it works. Thanks are due to the unknown benefactor. Hopefully Cornwall and Treverbyn Parish Councils will be able to replace it with a more conventional structure.

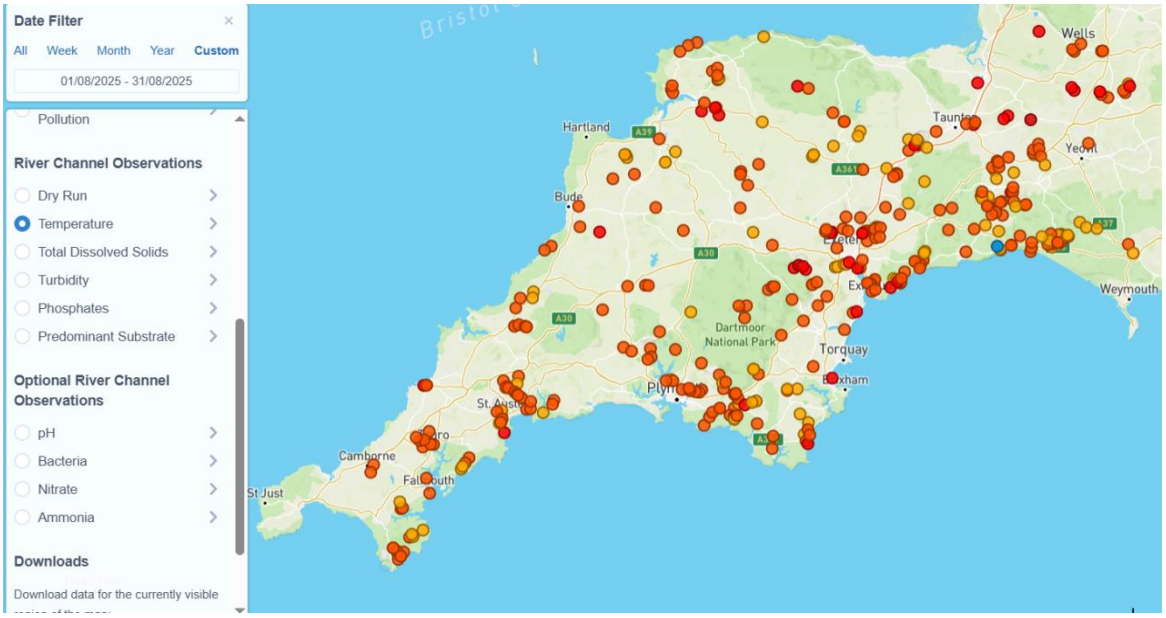
E. TEMPERATURE

1. This is the WRT's explanation of why this is monitored:

Temperature is a vital parameter within the river ecosystem. It controls many of the aquatic species life cycles. Temperature fluctuates with the seasons; however, you do get variation within that, particularly in small rivers and streams. Another important reason to measure temperature is to track the impact of our warming climate on our waterbodies.

Geographical comparison. Source: Cartographer.





Results August 2025

Results above the temperature at which fish and other organisms can function healthily will be shown in red. At present, 18 ˚Celsius is being used as the upper safe limit for fish and other creatures, although 20˚ Celsius has been suggested by WRT instead. The Yealm Estuary to Moor Project (YEM) in Devon considers that the upper safe level (USL) for temperature is 19.5 °C.

From December 2023 all readings have been taken with the new thermometer/TDS device. Previously, all Upper Par readings, except for Lady Rashleigh Mine, have been taken with the old device. There is a worrying discrepancy with the readings on the older devices.

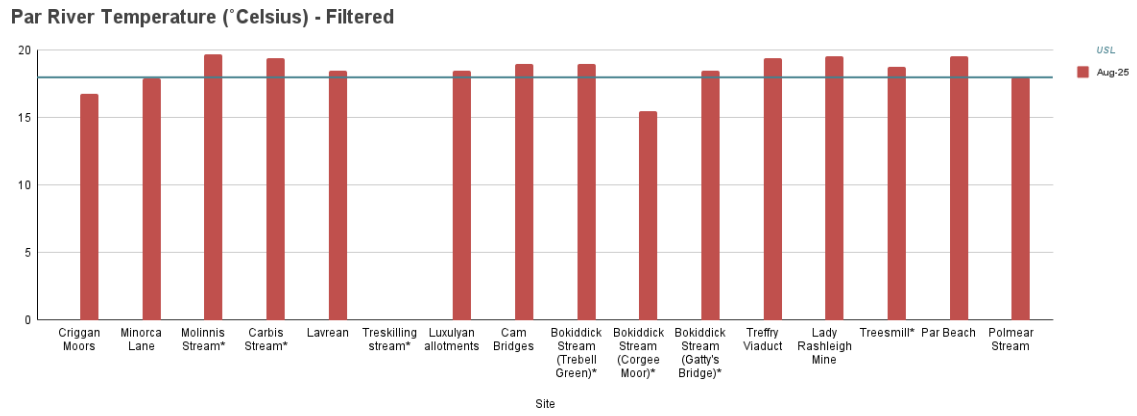
PAR RIVER/TRIBUTARY	LOCATION		Temperature ˚Celsius
Par	Criggan Moors, Par River, SX 01882 61133		**16.8**
Par	South of Minorca Lane, Par River, SX 02657 59788		**17.9**
Secondary tributary	Near Forkandles Farm, Molinnis Stream, SX 02460 59271		**19.7**
Tributary	Carbis Stream SX 02834 59401		**19.4**
Par	Lavrean, Par River SX 03134 59164		**18.5**
Tributary	Treskilling, Treskilling Stream, SX 04107 57726		**n/a**
Par	Luxulyan allotments, Par River, SX 04732 58045		**18.5**
Par	Cam Bridges, Par River, SX 05292 57454		**19**
Tributary	Trebell Green, Bokiddick Stream SX 0551960226		**19**
Tributary	Corgee Moor, Bokiddick Stream SX 0593462167		**15.5**
Tributary	Gatty's Bridge, Bokiddick Stream SX 05531 57953		**18.5**
Par	Treffry Viaduct, Par River, SX 05650 57179		**19.4**
Par	Lady Rashleigh Mine, Par River, SX 06451 56509		**19.6**
Tributary	Treesmill, Tywardreath Stream, SX 08873 55385		**18.8**
Par	Par Beach slipway, SX 0776 53261		**19.6**
Tributary	Polmear Stream, Ship Inn, SX 08749 53417		**18**

Colour coding:

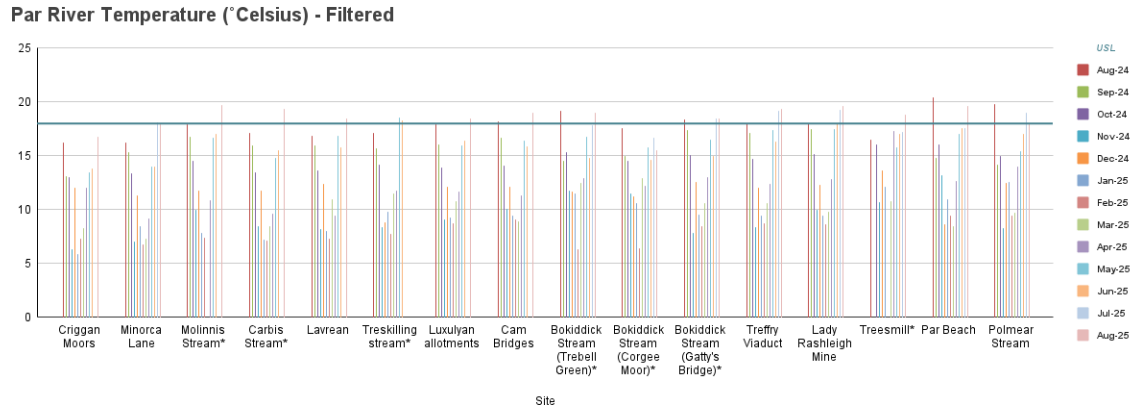
Upper Par	
Lower Par	
Bokiddick Stream	
Tributaries of Upper Par	
Tributaries of Lower Par	

3. Graphs

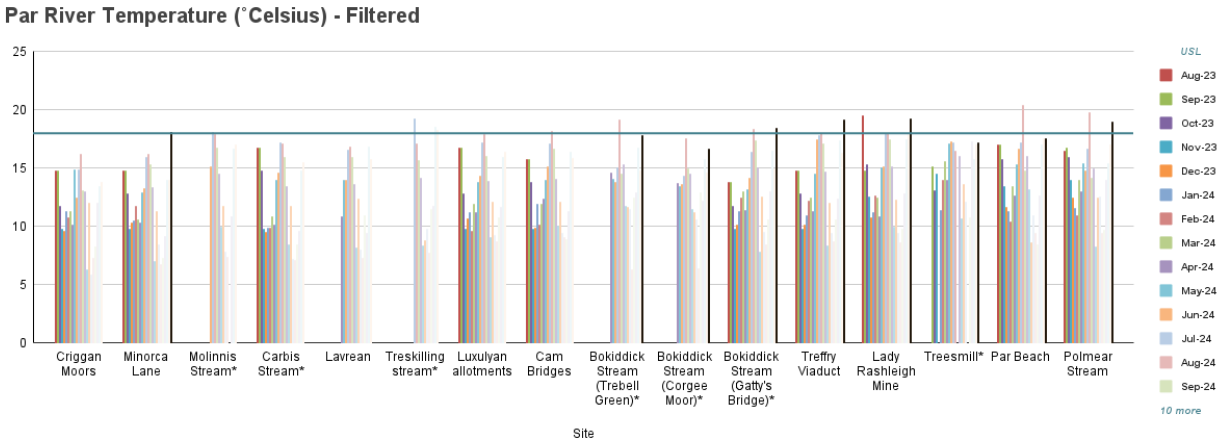
(a) This month:



(b) From 1st August 2024 until 31st August 2025:



(c) From 1st August 2023 until 31st August 2025:

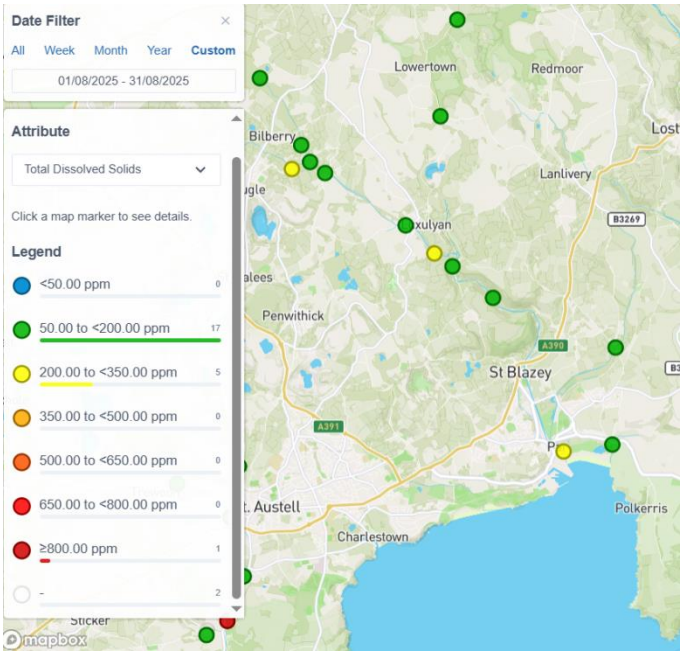


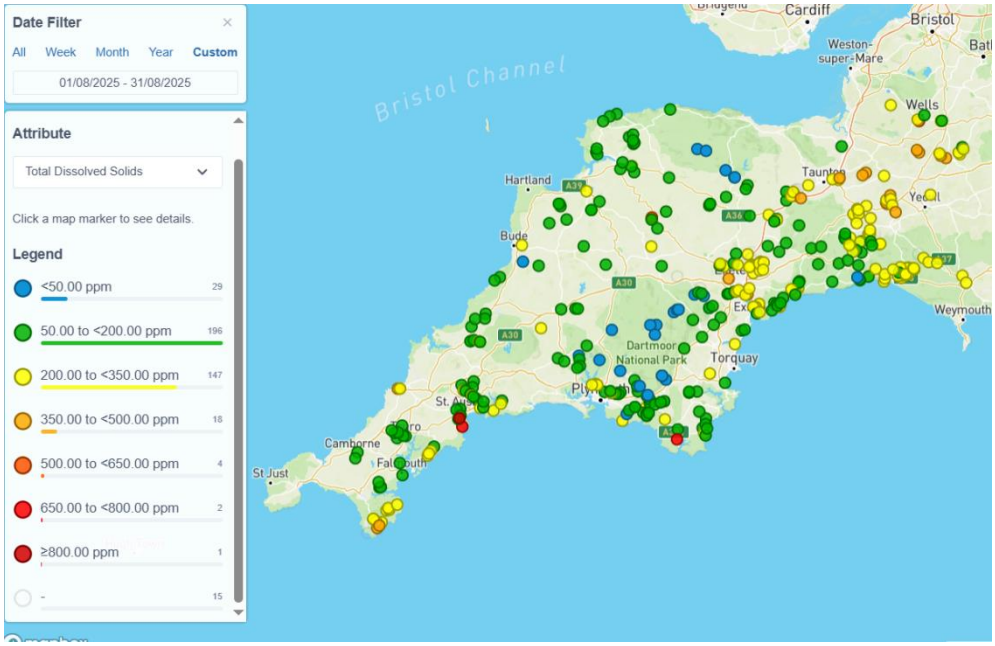
F. TOTAL DISSOLVED SOLIDS

1. We measure these in ppm (parts per million). This is the WRT's explanation:

Total Dissolved Solids (TDS) is directly related to the conductivity of the water. The more minerals, salts and metals that are dissolved in the water the more conductive it gets. Low levels of dissolved solids in waters such as those on Dartmoor near to the source of the river are a result of very low levels of input from the surrounding landscape. As the river runs down to the sea it collects material from many different inputs, some natural and some man-made such as farms, sewage plants, factories and residential areas. This typically increases the amount of solids dissolved in the water leading to a higher reading. Harmful pollution from things like sewage, slurry and factory discharge will usually elevate your TDS reading. However, some pollutants such as oil can lower conductivity; therefore it should be used as a general indicator of water quality not a specific measure of toxicity. Geology will influence the normal level of conductivity in a watercourse (e.g. Areas dominated by granite generally give a lower conductivity than those with limestone). Regular monitoring will allow the detection of changes in conductivity which can indicate pollution.

2. Geographical comparison. Source: Cartographer.





2. Results August 2025

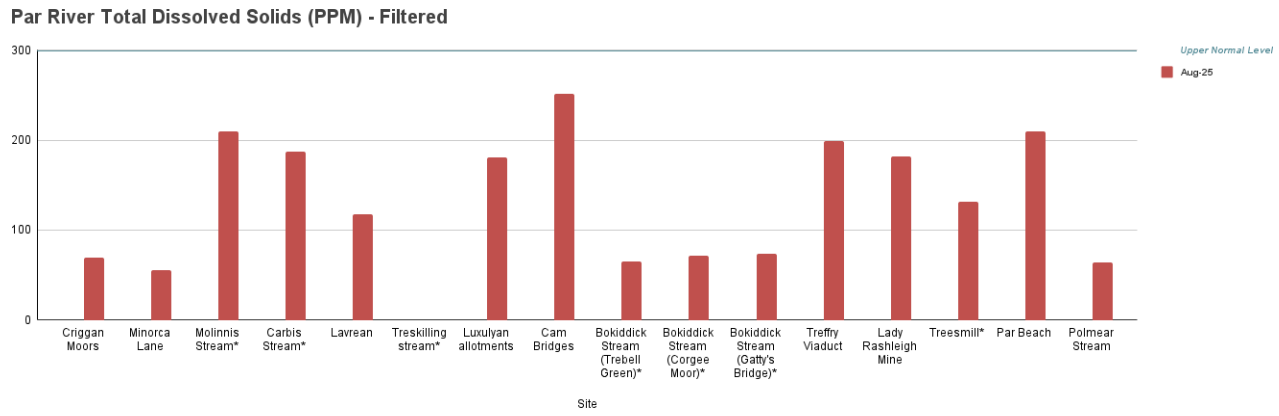
PAR RIVER/TRIBUTARY	LOCATION		Total Dissolved Solids PPM
Par	Criggan Moors, Par River, SX 01882 61133		**69**
Par	South of Minorca Lane, Par River, SX 02657 59788		**55**
Secondary tributary	Near Forkandles Farm, Molinnis Stream, SX 02460 59271		**210**
Tributary	Carbis Stream SX 02834 59401		**187**
Par	Lavrean, Par River SX 03134 59164		**118**
Tributary	Treskilling, Treskilling Stream, SX 04107 57726		**n/a**
Par	Luxulyan allotments, Par River, SX 04732 58045		**181**
Par	Cam Bridges, Par River, SX 05292 57454		**252**
Tributary	Trebell Green, Bokiddick Stream SX 0551960226		**65**
Tributary	Corgee Moor, Bokiddick Stream SX 0593462167		**71**
Tributary	Gatty's Bridge, Bokiddick Stream SX 05531 57953		**74**
Par	Treffry Viaduct, Par River, SX 05650 57179		**199**
Par	Lady Rashleigh Mine, Par River, SX 06451 56509		**182**
Tributary	Treesmill, Tywardreath Stream, SX 08873 55385		**132**
Par	Par Beach slipway, SX 0776 53261		**210**
Tributary	Polmear Stream, Ship Inn, SX 08749 53417		**64**

Colour coding:

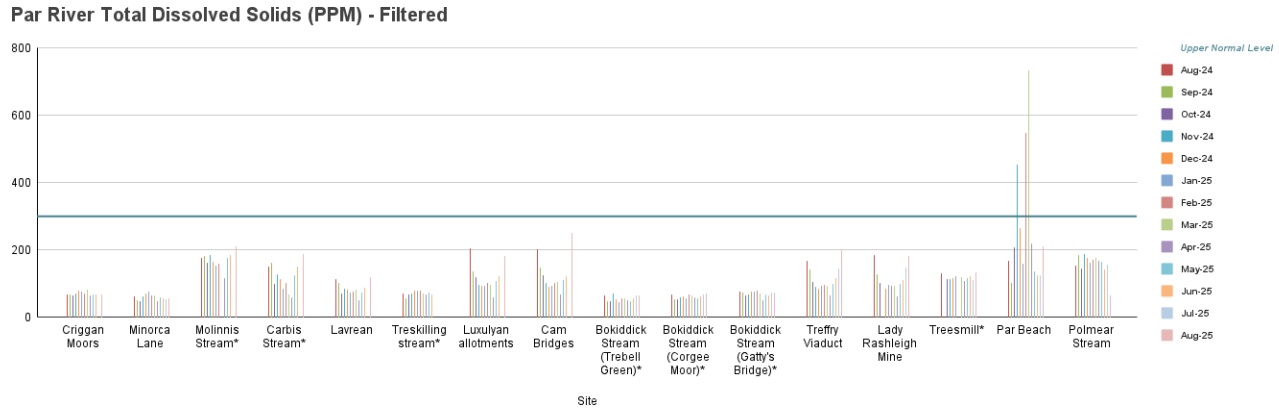
Upper Par	
Lower Par	
Bokiddick Stream	
Tributaries of Upper Par	
Tributaries of Lower Par	

3. Graphs

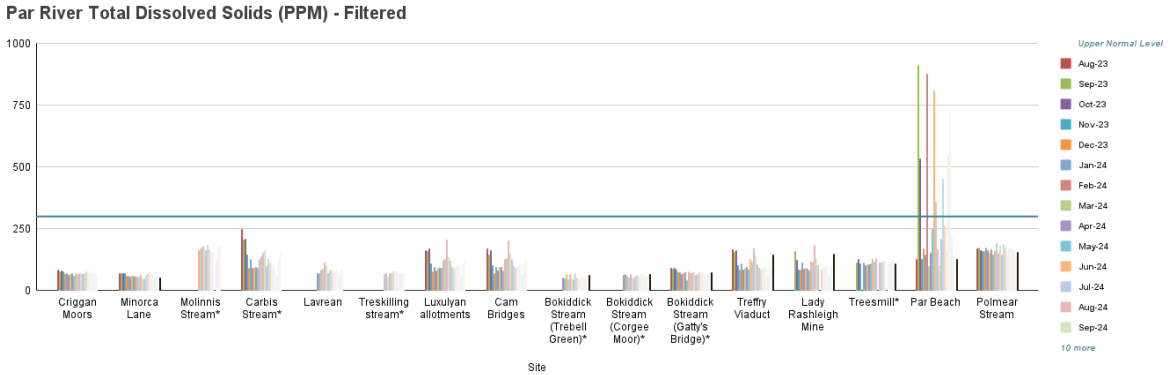
(a) This month:



(b) From 1st August 2024 until 31st August 2025:



(c) From 1st August 2023 until 31st August 2025:



G. TURBIDITY

1. This is the WRT explanation of this measure:

Turbidity tube is a measure of the optical clarity of the water. The more suspended particles in the water the lower the clarity and the higher the turbidity. You will often find your waterbody gets more turbid after heavy rainfall due to soil running off the fields and sediment being mixed into the water column. This loss of topsoil is both a problem for farmer and river. It can often contain chemicals from the fertiliser and pesticides used on the land. An increase in sediment level on the substrate of the river can cause smothering of habitat by removing light and oxygen. Aquatic wildlife such as the less mobile invertebrates and fish eggs struggle to survive in low oxygen conditions and without light, plants are unable to grow. It is a good idea to sample your river after different weather conditions to understand how it responds to rainfall or drought.

The Yealm Estuary to Moor Project (YEM) in Devon considers that the upper safe level (USL) for turbidity is 75 NTU = 25 mg/l.

2. Results July 2025:

PAR RIVER/TRIBUTARY	LOCATION		Turbidity (NTU)
Par	Criggan Moors, Par River, SX 01882 61133		**<12**
Par	South of Minorca Lane, Par River, SX 02657 59788		**<12**
Secondary tributary	Near Forkandles Farm, Molinnis Stream, SX 02460 59271		**<12**
Tributary	Carbis Stream SX 02834 59401		**<12**
Par	Lavrean, Par River SX 03134 59164		**<12**
Tributary	Treskilling, Treskilling Stream, SX 04107 57726		**<12**
Par	Luxulyan allotments, Par River, SX 04732 58045		**<12**
Par	Cam Bridges, Par River, SX 05292 57454		**<12**
Tributary	Trebell Green, Bokiddick Stream SX 0551960226		**<12**
Tributary	Corgee Moor, Bokiddick Stream SX 0593462167		**<12**
Tributary	Gatty's Bridge, Bokiddick Stream SX 05531 57953		**<12**
Par	Treffry Viaduct, Par River, SX 05650 57179		**<12**
Par	Lady Rashleigh Mine, Par River, SX 06451 56509		**<12**
Tributary	Treesmill, Tywardreath Stream, SX 08873 55385		**<12**
Par	Par Beach slipway, SX 0776 53261		**<12**
Tributary	Polmear Stream, Ship Inn, SX 08749 53417		**<12**

Colour coding:

Upper Par	
Lower Par	
Bokiddick Stream	
Tributaries of Upper Par	
Tributaries of Lower Par	

H. PHOSPHATES

1. This is the WRT's explanation of this measure.

Phosphate occurs naturally within the river ecosystem, but in very low levels under 0.05 mg/l. Therefore, higher levels may indicate anthropogenic input. Phosphate is found in animal and human waste, cleaning chemicals, industrial runoff and fertiliser so this can be a good indicator of pollution. Having raised levels of phosphate can lead to increases in plant growth within the watercourse. This leads to a depletion of oxygen due to the plant's aerobic respiration during the night. Without oxygen aquatic species cannot survive and the river ecosystem collapses. (It is important to note that phosphate is taken up by plants. You may get a low reading but high plant growth, indicating eutrophication.) Ranges on phosphate diagnostic colour chart:

0 – 100 OK
200 – 300 HIGH
500 – 2500 – TOO HIGH

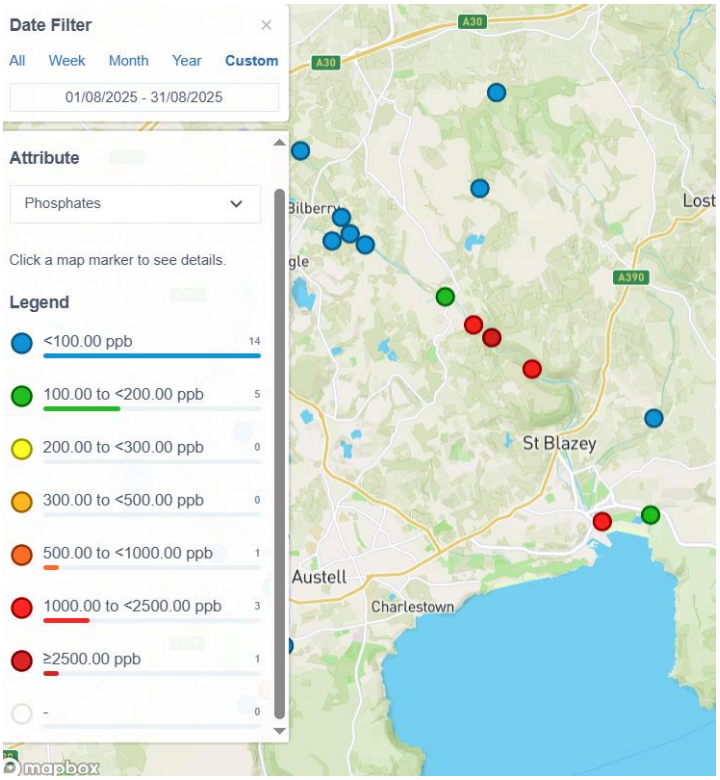
2. Results August 2025

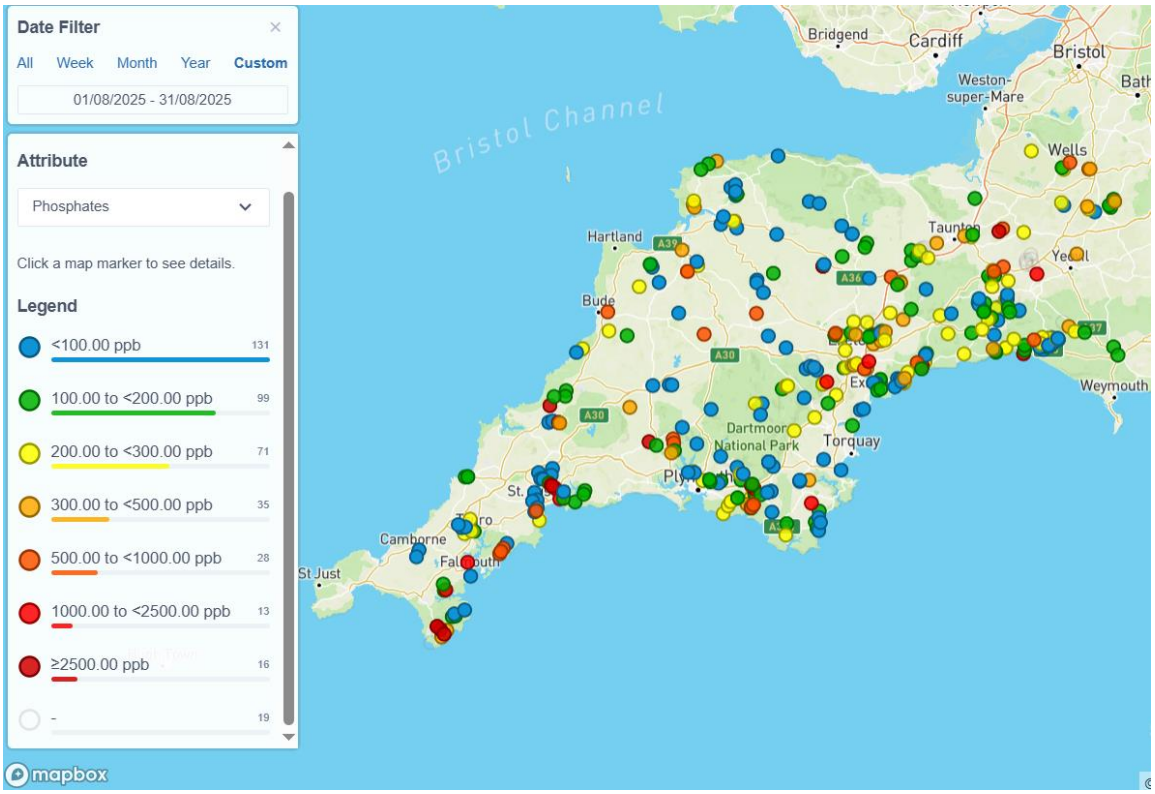
Results in red show phosphate levels that are classified as 'High' (above the upper safe level). WRT advice is that this is 100 Parts per Billion (0.1 mg/l).

PAR RIVER/TRIBUTARY	LOCATION		Phosphates PPB
Par	Criggan Moors, Par River, SX 01882 61133		**0**
Par	South of Minorca Lane, Par River, SX 02657 59788		**0**
Secondary tributary	Near Forkandles Farm, Molinnis Stream, SX 02460 59271		**0**
Tributary	Carbis Stream SX 02834 59401		**0**
Par	Lavrean, Par River SX 03134 59164		**0**
Tributary	Treskilling, Treskilling Stream, SX 04107 57726		**n/a**
Par	Luxulyan allotments, Par River, SX 04732 58045		**100 (AM); 2500 (PM)**
Par	Cam Bridges, Par River, SX 05292 57454		**1000**
Tributary	Trebell Green, Bokiddick Stream SX 0551960226		**0**
Tributary	Corgee Moor, Bokiddick Stream SX 0593462167		**0**
Tributary	Gatty's Bridge, Bokiddick Stream SX 05531 57953		**0**
Par	Treffry Viaduct, Par River, SX 05650 57179		**2500**
Par	Lady Rashleigh Mine, Par River, SX 06451 56509		**1000**
Tributary	Treesmill, Tywardreath Stream, SX 08873 55385		**0**
Par	Par Beach slipway, SX 0776 53261		**1000**
Tributary	Polmear Stream, Ship Inn, SX 08749 53417		**100**

Colour coding:

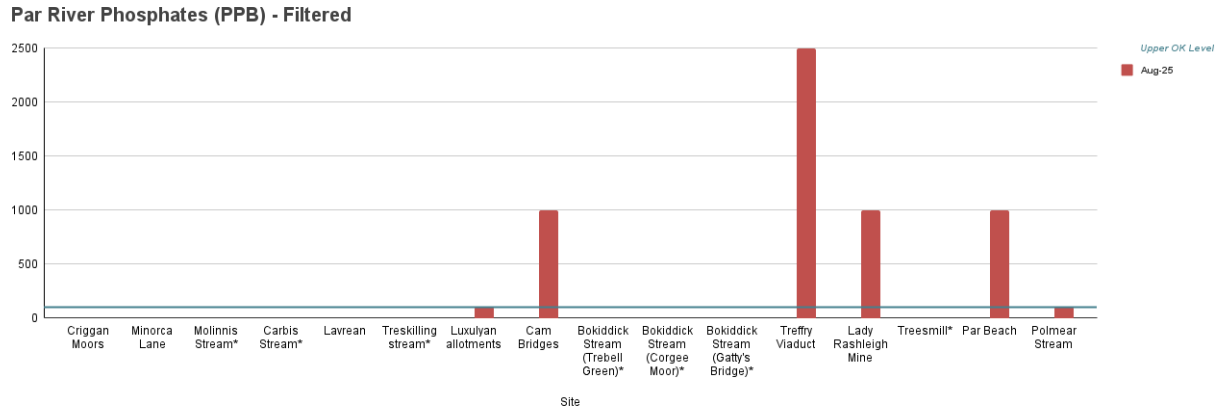
Upper Par	
Lower Par	
Bokiddick Stream	
Tributaries of Upper Par	
Tributaries of Lower Par	


Date Filter
All Week Month Year Custom
01/08/2025 - 31/08/2025
Attribute
Phosphates
Click a map marker to see details.
Legend
<100.00 ppb 14
100.00 to <200.00 ppb 5
200.00 to <300.00 ppb 0
300.00 to <500.00 ppb 0
500.00 to <1000.00 ppb 1
1000.00 to <2500.00 ppb 3
≥2500.00 ppb 1
- 0
A30
A390
St Blazey
Austell
Charlestown
mapbox

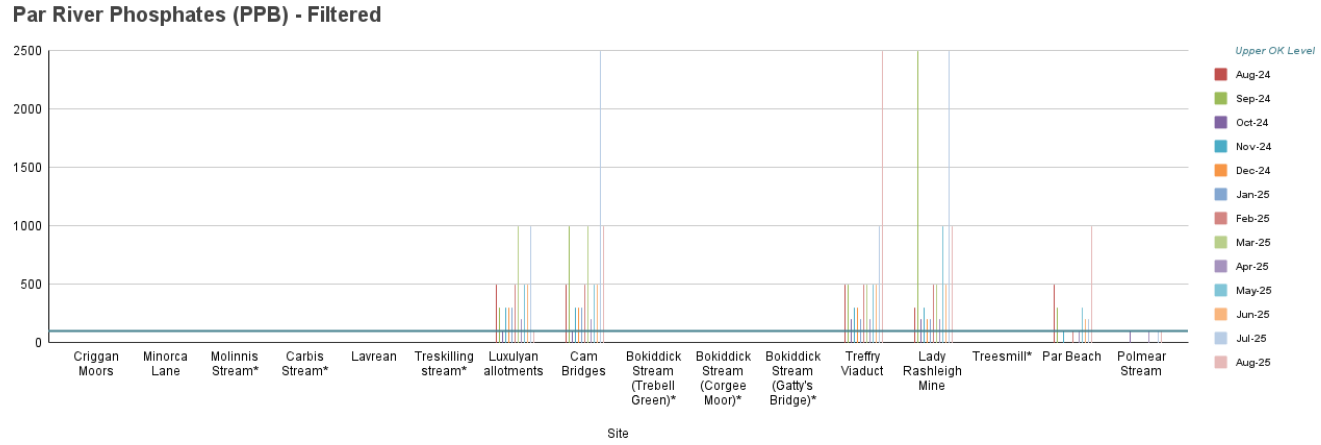

Date Filter
All Week Month Year Custom
01/08/2025 - 31/08/2025
Attribute
Phosphates
Click a map marker to see details.
Legend
<100.00 ppb 131
100.00 to <200.00 ppb 99
200.00 to <300.00 ppb 71
300.00 to <500.00 ppb 35
500.00 to <1000.00 ppb 28
1000.00 to <2500.00 ppb 13
≥2500.00 ppb 16
- 19
Bristol Channel
Bridgend
Cardiff
Bristol
Weston-super-Mare
Wells
Taunton
Hartland
Bude
A39
A36
A30
Dartmoor National Park
Torquay
Weymouth
Camborne
Falmouth
St Just
mapbox

4. Graphs (N.B. The afternoon reading for Luxulyan allotments was 2500 PPB)

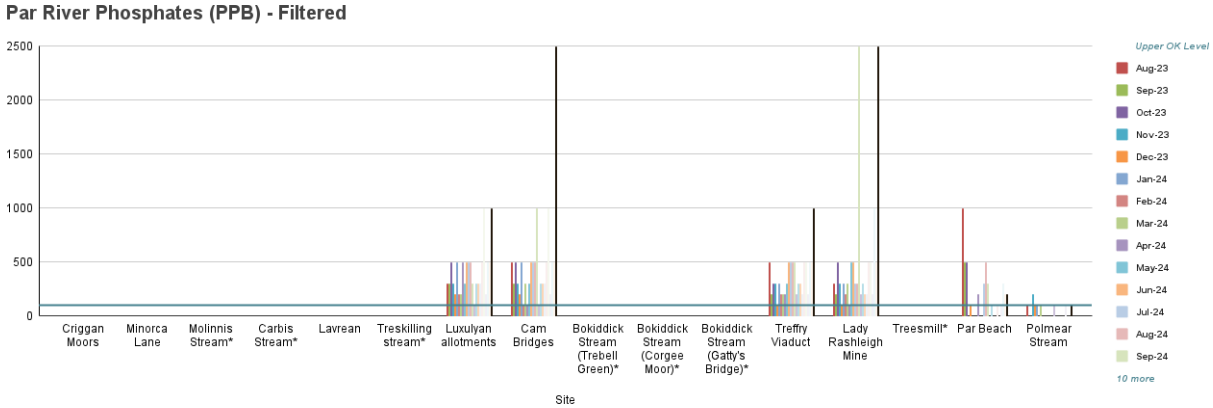
(a) This month:



(b) From 1st August 2024 until 31st August 2025:



(c)From 1st August 2023 until 31st August 2025:

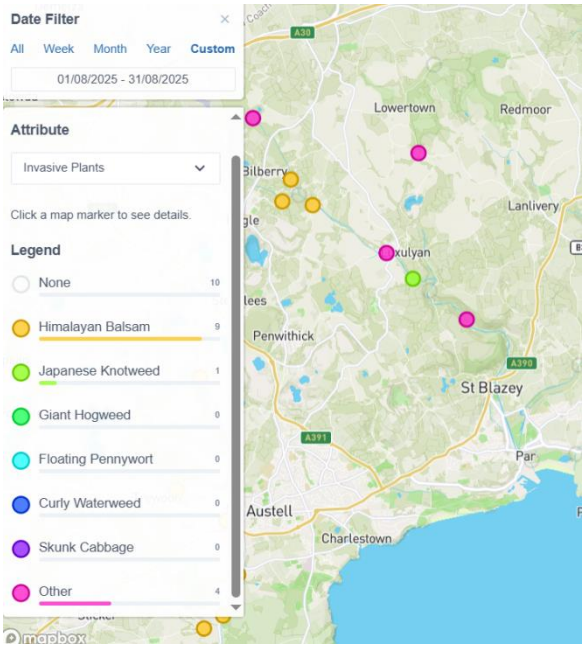


I. NITRATE

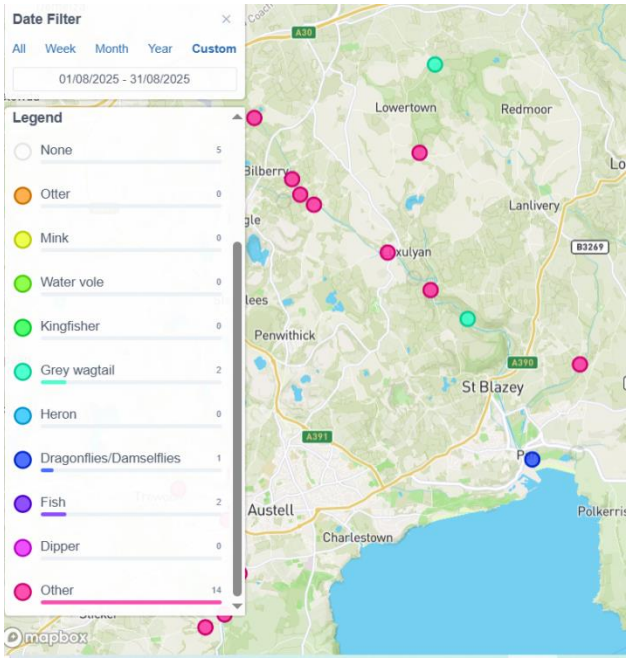
Nitrate testing began this month at all sites except Treesmill. Readings were all 0 PPM. Graphs will be generated once more results are available.

J. WILDLIFE & INVASIVE PLANTS

1. Invasive Plants sightings at the monitoring points included:



2. Wildlife sightings at the monitoring points included:



Wildlife & Invasive Plants sightings at the monitoring points included:

LOCATION	WILDLIFE NOTED		INVASIVE PLANTS NOTED
Criggan Moors, SX 01882 61133	**HEARD: Wood Pigeon, Robin**		Hemlock Water Dropwort
South of Minorca Lane, Par River, SX 02657 59788	**HEARD: Jay, Coal Tit, Goldcrest** **SEEN: Pond Skaters**		Hemlock Water Dropwort Himalayan Balsam
Forkandles Farm, Molinnis Stream, SX 02460 59271	**HEARD: Wren**		Japanese Knotweed Himalayan Balsam
Carbis Stream SX 02834 59401	**HEARD: Wood Pigeon, Great Tit, Chiffchaff**		None
Lavrean, Par River SX 03134 59164	**HEARD: Dunnock, Long-tailed Tit** **SEEN: Pond skater**		Himalayan Balsam
Treskilling, Treskilling Stream, SX 04107 57726	**n/a**		n/a
Luxulyan allotments, Par River, SX 04732 58045	**HEARD: House Sparrow, Wren, Great Tit, Robin, House Martin, Blackbird, Spotted Flycatcher, Common Redstart, Blackcap, Blue Tit, Greenfinch, Chiffchaff, Wood Pigeon**		Hemlock Water Dropwort
Cam Bridges, Par River, SX 05292 57454			Hemlock Water Dropwort, Japanese Knotweed
Trebell Green, Bokiddick Stream SX 0551960226	**HEARD: Moorhen, Redstart, Treecreeper, Long-tailed Tit, Marsh Tit, Chaffinch, Great Tit, Blue Tit, Wood Pigeon, Chiffchaff, Wren, Goldcrest** **SEEN: Lake created by beaver dam and gnawed trees. Grey Wagtail, Treecreeper**		
Corgee Moor, Bokiddick Stream SX 0593462167	**HEARD: Treecreeper, Magpie, Buzzard, Common Redstart, Wood Pigeon**		Hemlock Water Dropwort
Gatty's Bridge, Bokiddick Stream SX 05531 57953	**HEARD: Wood Pigeon, Blue Tit**		
Treffry Viaduct, Par River, SX 05650 57179	**HEARD: Goldcrest, Coal Tit**		
Lady Rashleigh Mine, Par River, SX 06451 56509	**SEEN: Old otter spraint. Riverfly nymphs ()Cased Caddis, Caseless Caddis, Olives, Stoneflies, Gammarus)**		Hemlock Water Dropwort
Treesmill, Tywardreath Stream, SX 08873 55385	**HEARD: Meadow Pipit, Swallow**		Hemlock Water Dropwort
Par Beach slipway, SX 0776 53261	**SEEN: Heron, Dragonflies**		
Polmear Stream, Ship Inn, SX 08749 53417			

The Merlin Bird ID app has been used to identify birdsong (https://merlin.allaboutbirds.org/).

Colour coding:

Upper Par	
Lower Par	
Bokiddick Stream	
Tributaries of Upper Par	
Tributaries of Lower Par	

K. ARMI RIVERFLY SURVEYS ON TYWARDREATH STREAM

Four of the group (Joan Farmer, Veronica Jones, Roger Smith, and Simon Tagney) have undertaken the training to carry out Riverfly Surveys under the Anglers' Riverfly Monitoring Initiative (https://www.riverflies.org/rp-riverfly-monitoring-initiative). In short, sampling for 8 riverfly groups is carried out using standardised methods with scores calculated for their abundance. Information is passed to ARMI and the ORKS database. If the score does not reach a trigger level (in our case trigger level was raised from 5 to 6 in May 2022), the Environment Agency must be informed immediately since it is highly likely to indicate that the water is polluted. Our group initially received approval to sample at two sites: Luxulyan allotments (SX 04743 58054) and Lady Rashleigh Mine (SX 06453 56500). We have decided, for the time being, to concentrate on the latter, but from May 2024 moved the kick-sampling site a few metres downstream of the bridge where conditions are safer and easier. This amended site is known as Lady Rashleigh 2 in the ARMI/ORKS record. Recently, Simon and Brian have started to look at a location on the Tywardreath Stream, at SX SX0887055340.

It is impossible to count every invertebrate so this counting method is used:

Abundance	Score	Estimated Number
1-9	1	Quick count
10-99	2	Nearest 10
100-999	3	Nearest 100
>1000	4	Nearest 1000

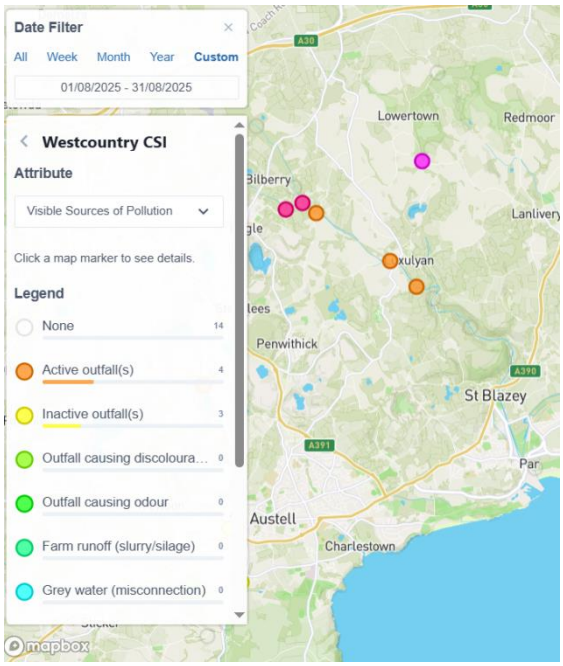
Results of survey on the Tywardreath Stream carried out by Joan Farmer, Veronica Jones and Roger Smith on 13th August 2025.

	SPECIES	NUMBER	CATEGORY
Trichoptera			
1	Cased Caddisfly	3	1
2	Caseless Caddisfly	1	1
Ephemeroptera 3 tails			
3	Mayfly (Ephemeridae)	0	0
4	Blue-winged olive (Ephemerellidae)	0	0
5	Flat-bodied up-wings (Heptageniidae)	0	0
6	Olives (Baetidae)	6	1
Plecoptera 2 tails			
7	Stoneflies	4	1
Gammaridae			
8	Freshwater Shrimp	20	2
			6

CATEGORY TOTAL	**6**
TRIGGER LEVEL	**6**

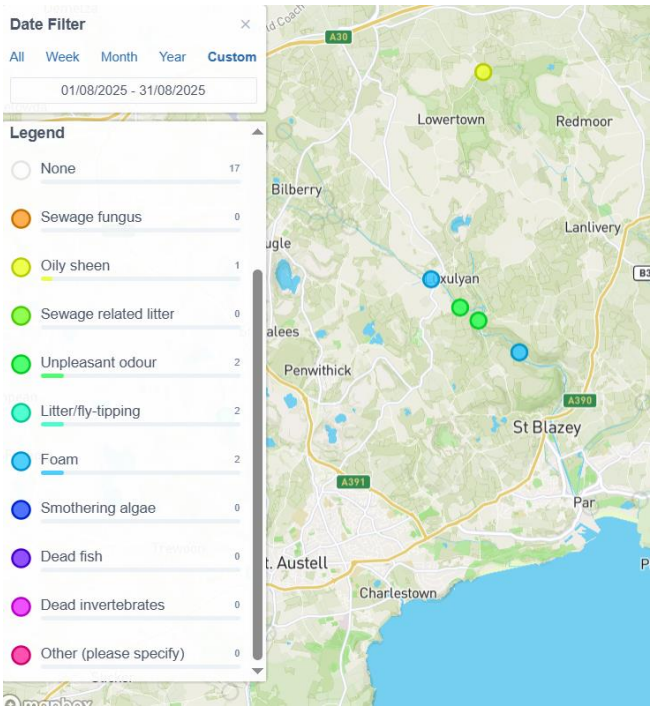
L. POLLUTION SOURCES AND EVIDENCE

1. Visible sources of pollution (source: Cartographer)



2. Evidence of recent pollution:

N.B. The ‘oily sheen’ at Higher Trevilmick has been shown again despite **not** being reported.



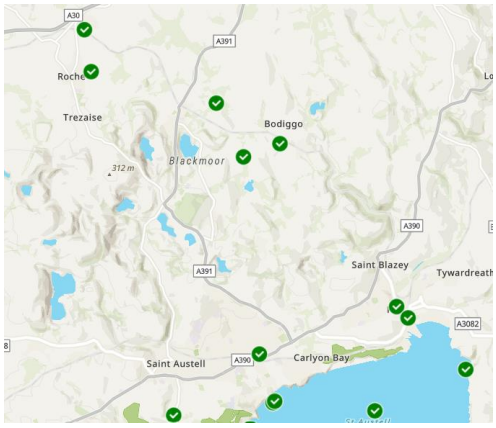
LOCATION		EVIDENCE OF RECENT POLLUTION
Criggan Moors, SX 01882 61133		None
South of Minorca Lane, Par River, SX 02657 59788		None
Forkandles Farm, Molinnis Stream, SX 02460 59271		None
Carbis Stream SX 02834 59401		None
Lavrean, Par River SX 03134 59164		Foam
Treskilling, Treskilling Stream, SX 04107 57726		Trampled mud (cattle)
Luxulyan allotments, Par River, SX 04732 58045		Foam, phosphate
Cam Bridges, Par River, SX 05292 57454		Foam, smell, phosphate
Trebell Green, Bokiddick Stream SX 0551960226		None
Corgee Moor, Bokiddick Stream SX 0593462167		None
Gatty's Bridge, Bokiddick Stream SX 05531 57953		None
Treffry Viaduct, Par River, SX 05650 57179		Smell, phosphate
Lady Rashleigh Mine, Par River, SX 06451 56509		Foam, smell, phosphate
Treesmill, Tywardreath Stream, SX 08873 55385		None
Par Beach slipway, SX 0776 53261		Phosphate
Polmear Stream, Ship Inn, SX 08749 53417		None

N.B. Although not noticeable at our monitoring points, there is a persistent smell of sewage in the vicinity of the Molinnis CSO even when there have been no reported discharges.

High phosphate levels were reported to the Environment Agency on 16th July 2025. The reference number is: 02418553.

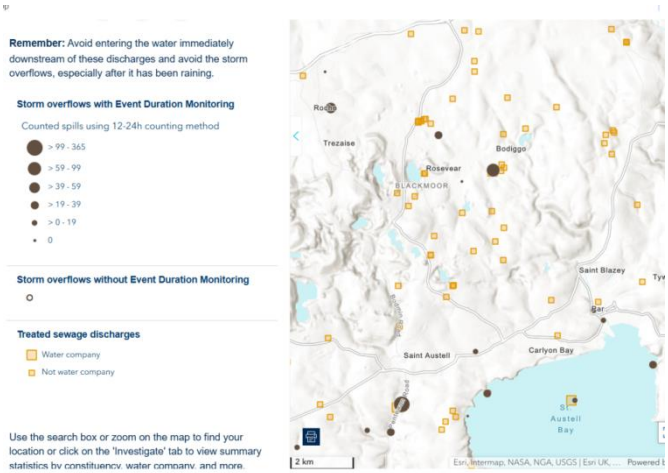
3. South West Water Storm Overflows

The Rivers Trust's sewage map (https://www.sewagemap.co.uk/) gives live information about discharges of sewage into rivers and the sea by water companies. (This is also provided by South West Water's WaterFit Live site: https://www.southwestwater.co.uk/storm-overflow-map).



This screenshot is for illustrative purposes only. Not all of the locations are in the Par River catchment.

It should be noted that there are also numerous private sewerage arrangements in the area but information about possible contamination of watercourses from these has not been found. The following screenshot shows the different facilities in the area (source: https://theriverstrust.org/key-issues/sewage-in-rivers)



(b) South West Water Storm Overflows in the Par River Catchment (updated June 2025):

The main overflows are (from source to sea along the catchment):

- Roche storm overflow (SWW1001)
- Molinnis storm overflow, Bugle (SWW0765)
- Rescorla storm overflow, Luxulyan (SWW0987)
- Luxulyan sewage treatment works settled storm overflow, St Austell (SWW0694)
- Tredenham Close storm overflow, Par (SWW1230)
- Par No2 pumping station overflow, Par (SWW0519)

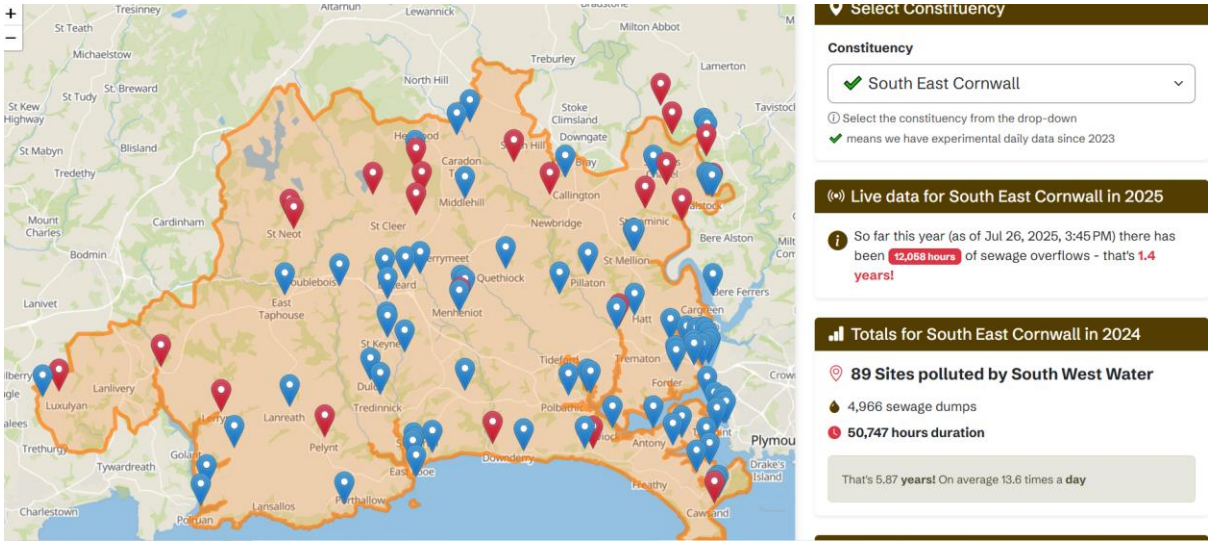
(c) SWW Storm Overflow spills July2025 (https://theriverstrust.org/sewage-map**)**. This may not be accurate.

LOCATION/WATERCOURSE	SPILLAGES	TOTAL SPILLAGE DURATION JUNE 2025
Victoria pumping station overflow, Roche (SWW1266) Into Par River	28 August 2025 from 11:14 p.m. to 11:51 pm	37 minutes
Molinnis storm overflow, Bugle (SWW0765) Into tributary of Par River	28 August 2025 from 10:40 pm until 12:16 am	I hour 36 minutes
Rescorla storm overflow, Luxulyan (SWW0987)	28 August 2025 from 11:36 pm until 11:53 pm	17 minutes

Into 'Tributary of Par Sands (S)' [sic]		
Luxulyan sewage treatment works settled storm overflow, St Austell (SWW0694) Into Par River		
Tredenham Close storm overflow, Par (SWW1230) Into St Blazey stream	28 August 2025 from 12:43 pm until 12:51 am	8 minutes
Par No2 pumping station overflow, Par (SWW0519) Into Par River	28 August 2025 from 11:26 pm until 1:08 am	1 Hour 42 minutes

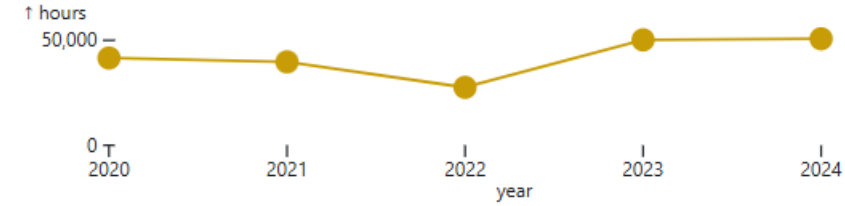
(e) South West Water sewage spills by Parliamentary constituency

(i) South-East Cornwall (https://top-of-the-poops.org/constituency/south-east-cornwall **)**



That's 5.87 **years!** On average 13.6 times a **day**

Change Over Time

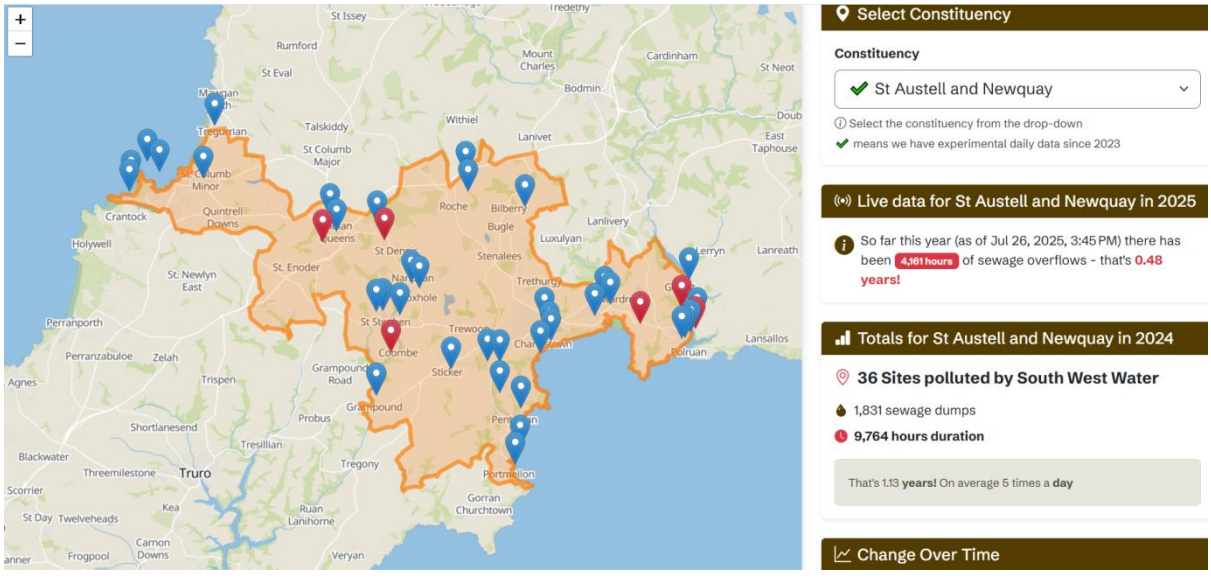


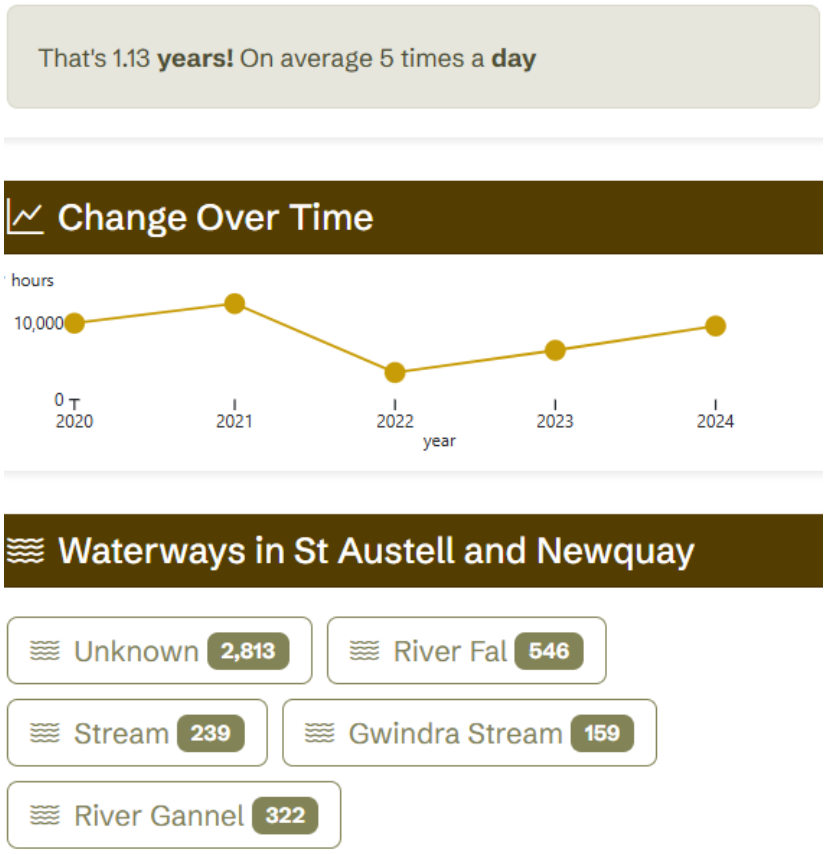
Waterways in South East Cornwall

Unknown 2,813	River Tamar 2,001
River Fowey 299	River Seaton 403
River Lynher 272	

The Par/Luxulyan River will be included in 'Unknown'.

(ii) St Austell and Newquay





(iii) South-East Cornwall and St Austell and Newquay Parliamentary constituency sewage spills national rankings 2024.

	National rank	Sewage dumps	Change (dumps)	Duration (hours)	Change (hours duration)
SE Cornwall	**11/650**	**4966**	**↓ -738**	**50,747**	**↑ 530**
St Austell & Newquay	**129/650**	**1831**	**↑ 218**	**9,764**	**↑ 3223**

M. HOW TO REPORT RIVER POLLUTION

HOW TO REPORT RIVER POLLUTION

River pollution can now be reported **online** to the Environment Agency at: https://www.gov.uk/report-water-pollution .

Use this service to report water pollution in:

- rivers or the sea
- lakes or reservoirs
- canals
- smaller streams or watercourses (for example, a brook or culvert)

Water pollution can include:

- sewage
- waste, spills or leaks from farms
- waste, spills or leaks from factories or other industry
- spills or leaks from objects

If you're unable to use the online service, you can **call** the Environment Agency:

Environment Agency incident hotline

Telephone: **0800 80 70 60**

24-hour service

N. OUR GROUP AND SUPPORTERS

Monitoring is part of the Citizen Science programme run by the West Country Rivers Trust (WCRT) and is carried out monthly by volunteers, including Joan Farmer; Veronica Jones; Roger Smith; Simon Tagney; Maggie Tagney; and Brian Harrisson. They have received training from Lydia Ashworth, Junior Evidence and Engagement Officer of the West Country Rivers Trust (https://wrt.org.uk/project/become-a-citizen-scientist/). Results are logged on the Cartographer website. The support and advice given by Ross Tonkin, Lloyd Paynter, David Edwards, Claire and Gary Phillips, Jenny Heskett, Nick Taylor, Jeremy Roberts, Mat Bateman, Colin Pringle, Matt Healey, Simon Browning, Lydia Deacon, Jack Middleton, Anna Seal, Anna Crane, Zoe Connelly, Jade Neville, Lauren Jasper, Callum Lewis, Gwen Maggs, Oscar Miller and Sasha Pinto is greatly appreciated. The work carried out by the late Dave Burrell both in the field and in checking reports will not be forgotten. The interest and encouragement offered by Environment Agency officers, especially Lisa Best, Lisa Goodall, Layla Ousley, Jenny Davies, Leah Steward, Nicola Rogers and Peter Scobie, have been invaluable.

Report compiled by Roger Smith, 26th August 2025