## **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.

## **FEBRUARY 2025**



The Polmear Stream near Par Beach. Photo: Simon Tagney

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

## 1. Data

We sampled at 15 locations between 11<sup>th</sup> and 17th February 2025. The **red** highlighting shows results of concern.

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 (CARBIS STREAM, MOLINNIS STREAM, TRESKILLING STREAM, BOKIDDICK STREAM) 6 TESTING LOCATIONS	TRIBUTARY OF LOWER PAR (POLMEAR STREAM) 1 TESTING LOCATION
TEMPERATURE ° CELSIUS (SHOULD NOT EXCEED 18° CELSIUS) TOTAL DISSOLVED SOLIDS PPM	Mean 7.84 Median 7.3 Min 6.8 Max 9.1 Mean 83 Median 77	Mean 8.9 Median 8.7 Min 8.6 Max 9.4 Mean 246 Median 96	Mean 7.23 Median 7.25 Min 6.3 Max 8.5 Mean 90 Median 78	Mean 9.4 Median 9.4 Min 9.4 Max 9.4 Mean 171 Median 171
(SHOULD NOT EXCEED 300 PPM)	Min 66 Max 103	Min 94 Max <mark>548</mark>	Min 55 Max 158	Min 171 Max 171
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 <b>200</b> Median 0 Min 0 Max <b>500</b>	Mean <b>366.66</b> Median <b>500</b> Min 100 Max <b>500</b>	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)	RIVERFLY SURVEYS WI	LL RESUME IN SPRING 2	2025	
WILDLIFE EVIDENCE	Deer tracks. Heard: Great Tit, Chaffinch, Redwing, Blue Tit Goldfinch, Linnet, Robin, Coal Tit, Robin, Marsh Tit, Long-tailed Tit Heron (seen). Otter spraint (probable).	Seen: Dipper, Gulls.	Beaver lake, beaver-gnawed trees. Heard: Canada Geese, Great Tit, Chaffinch, Blue Tit, Linnet.	None
INVASIVE PLANTS	None	None	Hemlock Water Dropwort Japanese Knotweed (dead).	None
EVIDENCE OF POLLUTION	Foam, smell	Foam	None.	Traffic cone.

## 2. Key points

#### (a) Positive signs

There was some pleasing evidence of wildlife, e.g. a heron and a dipper, plus evidence of the presence of otters and beavers.

#### b) Points of concern

(i) High phosphate levels of 500 parts per billion (PPB) downstream from St Austell North STW at Luxulyan, and 100 PPB at Par Beach.

(ii) Discharges from the SWW storm overflows continue during wet weather, with one overflow, at the St Austell North STW at Luxulyan, discharging for over 144 hours, according to the SWW WaterFit Live Storm Overflow map. The storm overflow started on a wet day, but continued through a week of predominantly dry weather.

(iii) At Par Beach slipway the reading for Total Dissolved Solids was 548 parts per million (PPM) significantly exceeding the figure of 300 parts per million (PPM) that we have been told is unacceptably high.

## (c) Areas for further research

Officials from South West Water attended a public session of Luxulyan Parish Council on 13<sup>th</sup> February 2025 at the invitation of the council. Concern about the noise associated with work being carried out at the St Austell North STW at Luxulyan was one reason for this invitation but it provided an opportunity to ask about the impact of this facility on water quality in the river. It was confirmed that the work that has been carried out over the last year or so was directed at the reduction of ammonia in outfalls. Less clear was when the anticipated work to reduce phosphates would commence. Concern was also expressed that the STW might not have the capacity to accommodate the increased sewage flows from developments such as the 'eco-village' at Penwithick without resorting to the use of sewer overflows into the river. It transpired that SWW is not a statutory consultee in the planning process, which raises questions about the sustainability of the numerous major building projects that Cornwall has seen, and is likely to continue to see.

#### **B. RAINFALL, RIVER LEVELS AND FLOW**

# **1. Rainfall at Luxulyan** (<u>https://environment.data.gov.uk/hydrology/station/14aadf3c-3d4d-44b3-b26b-cf705827d00e\_377323</u>)</u>



#### 2. Par River levels at Luxulyan preceding and during surveys. Source:

https://environment.data.gov.uk/hydrology/station/14aadf3c-3d4d-44b3-b26bcf705827d00e

(a) Levels



#### (b) Maximum and minimum levels at Luxulyan for the last year:



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



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





## (b) The last year:



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. FEBRUARY 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:** <u>https://magic.defra.gov.uk/MagicMap.aspx</u>



LOCATION	PAR/TRIBUTARY	DATE/TIME	TYPE OF CHECK	MONITORED BY
Criggan Moors, Par River,	PAR	12/2/2025	CSI sample & Cartographer record.	Roger Smith
SX 01882 61133		9:00		
South of Minorca Lane, Par	PAR	12/2/2025	CSI sampling. Cartographer record.	Roger Smith
River, SX02668 59747		8:15		
Near Forkandles farm,	SECONDARY	12/2/2025	CSI sample & Cartographer record.	Roger Smith
Molinnis Stream, SX 02460	TRIBUTARY (OF	10:05		
59271	CARBIS STREAM)			
Carbis Stream SX 02834	TRIBUTARY	12/2/2025	CSI sampling. Cartographer record.	Roger Smith
59401		9:50		
Lavrean, Par River SX 03134	PAR	12/2/2025	CSI sampling. Cartographer record.	Roger Smith
59164		10:30		
Treskilling, Treskilling	TRIBUTARY	12/2/2025	CSI sampling. Cartographer record.	Roger Smith
Stream, SX 04107 57726		11:05		
Luxulyan allotments, Par	PAR	12/2/2025	CSI sampling. Cartographer record.	Roger Smith
River, SX 04732 58045		11:45		
Cam Bridges, Par River, SX	PAR	12/2/2025	CSI sampling. Cartographer record.	Roger Smith
05292 57454		13:00		
Trebell Green, Bokiddick	TRIBUTARY	11/2/2025	CSI sampling. Cartographer record.	Roger Smith
Stream SX 0551960226		15:20		
Corgee Moor, Bokiddick	TRIBUTARY	11/2/2025	CSI sampling. Cartographer record.	Roger Smith
Stream SX 0593462167		16:15		
Gatty's Bridge, Bokiddick	TRIBUTARY	12/2/2025	CSI sampling. Cartographer record.	Joan Farmer
Stream SX 05531 57953		15:50		
Treffry Viaduct, Par River,	PAR	12/2/2025	CSI sampling. Cartographer record.	Roger Smith
SX 05650 57179		15:10		
Lady Rashleigh Mine, Par	PAR	12/2/2025	CSI sampling. Cartographer record. ARMI	Veronica Jones,
River, SX 06451 56509		14:15	riverfly survey.	Joan Farmer, Roger
				Smith
Par Beach slipway, SX 0776	PAR	17/2/2025	CSI sampling. Cartographer record.	Brian Harrisson
53261		13:30		
Polmear Stream, Ship Inn	TRIBUTARY	17/2/2025	CSI sampling. Cartographer record.	Simon Tagney
SX 08749 53417		9:30		

#### **D. 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.





#### 2. Results February 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	7.3
Par	South of Minorca Lane, Par River, SX 02657 59788	6.8
Secondary	Near Forkandles Farm, Molinnis Stream, SX 02460 59271	7.4
tributary		
Tributary	Carbis Stream SX 02834 59401	7.1
Par	Lavrean, Par River SX 03134 59164	7.3
Tributary	Treskilling, Treskilling Stream, SX 04107 57726	7.7
Par	Luxulyan allotments, Par River, SX 04732 58045	8.7
Par	Cam Bridges, Par River, SX 05292 57454	9.1
Tributary	Trebell Green, Bokiddick Stream SX 0551960226	6.3
Tributary	Corgee Moor, Bokiddick Stream SX 0593462167	6.4
Tributary	Gatty's Bridge, Bokiddick Stream SX 05531 57953	8.5
Par	Treffry Viaduct, Par River, SX 05650 57179	8.7
Par	Lady Rashleigh Mine, Par River, SX 06451 56509	8.6
Par	Par Beach slipway, SX 0776 53261	9.4
Tributary	Polmear Stream, Ship Inn, SX 08749 53417	9.4

#### 3. Graphs

#### (a) This month:



## (b) From 1<sup>st</sup> February 2024 until now:







Par River Temperature (°Celsius) - Filtered

#### D. 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 February 2025

PAR	LOCATION	Total
RIVER/TRIBUTARY		Dissolved Solids PPM
Par	Criggan Moors, Par River, SX 01882 61133	71
Par	South of Minorca Lane, Par River, SX 02657 59788	66
Secondary tributary	Near Forkandles Farm, Molinnis Stream, SX 02460 59271	158
Tributary	Carbis Stream SX 02834 59401	103
Par	Lavrean, Par River SX 03134 59164	77
Tributary	Treskilling, Treskilling Stream, SX 04107 57726	78
Par	Luxulyan allotments, Par River, SX 04732 58045	103
Par	Cam Bridges, Par River, SX 05292 57454	102
Tributary	Trebell Green, Bokiddick Stream SX 0551960226	55
Tributary	Corgee Moor, Bokiddick Stream SX 0593462167	68
Tributary	Gatty's Bridge, Bokiddick Stream SX 05531 57953	78
Par	Treffry Viaduct, Par River, SX 05650 57179	96
Par	Lady Rashleigh Mine, Par River, SX 06451 56509	94
Par	Par Beach slipway, SX 0776 53261	548
Tributary	Polmear Stream, Ship Inn, SX 08749 53417	171

#### 3. Graphs

#### (a) This month:









Par River Total Dissolved Solids (PPM) - Filtered





Par River Total Dissolved Solids (PPM) - Filtered

#### **E. 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 February 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	Near Forkandles Farm, Molinnis Stream, SX 02460	<12
tributary	59271	
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
Par	Par Beach slipway, SX 0776 53261	<12
Tributary	Polmear Stream, Ship Inn, SX 08749 53417	<12



3. Geographical comparison. Source: Cartographer.



#### 4. Graphs

(a) This month:



#### (b) From 1<sup>st</sup> February 2024 until now:









#### E. 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 February 2025

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	Near Forkandles Farm, Molinnis Stream, SX 02460 59271	0
tributary		
Tributary	Carbis Stream SX 02834 59401	0
Par	Lavrean, Par River SX 03134 59164	0
Tributary	Treskilling, Treskilling Stream, SX 04107 57726	0
Par	Luxulyan allotments, Par River, SX 04732 58045	500
Par	Cam Bridges, Par River, SX 05292 57454	500
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	500
Par	Lady Rashleigh Mine, Par River, SX 06451 56509	500
Par	Par Beach slipway, SX 0776 53261	100
Tributary	Polmear Stream, Ship Inn, SX 08749 53417	0

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).



3. Geographical comparison. Source: Cartographer.



#### 4. Graphs

#### (a) This month:



## (b) From 1<sup>st</sup> February 2024 until now:





Par River Phosphates (PPB) - Filtered





Par River Phosphates (PPB) - Filtered

#### G. WILDLIFE & INVASIVE PLANTS

**1.** Evidence of otters is found nearly every month, but frequently it is not found at our monitoring points and when it is it will be entered under 'Other' because live sightings are extremely rare. However, in October, a combination of high river levels and a lack of time meant that no evidence was found. This does not mean that otters were not present. Bird identification in **blue** shows their song was identified on the Merlin Bird App (<u>https://merlin.allaboutbirds.org/</u>).

#### 2. Wildlife & Invasive Plants sightings at the monitoring points included:

LOCATION	WILDLIFE NOTED	INVASIVE PLANTS
Criggan Moors, SX 01882	Great Tit, Chaffinch, Redwing, Blue Tit,	None
01133	Deer tracks.	
South of Minorca Lane,	Blue Tit, Great Tit, Chaffinch, Linnet.	None
Forkandles Farm,	Canada Goose, Blue Tit, Great Tit,	Japanese Knotweed
Molinnis Stream, SX 02460 59271	Chaffinch.	(dead)
Carbis Stream SX 02834 59401	Blue Tit	None
Lavrean, Par River SX 03134 59164	None	None
Treskilling, Treskilling Stream, SX 04107 57726	None	None
Luxulyan allotments, Par River, SX 04732 58045	Robin, Blue Tit, Coal Tit. Recent otter spraint?	None
Cam Bridges, Par River, SX	Blue Tit, Great Tit, Marsh Tit, Long-	None
05292 57454	tailed Tit. Heron seen.	
Trebell Green, Bokiddick Stream SX 0551960226	Lake created by beaver dam.	None
Corgee Moor, Bokiddick Stream SX 0593462167	Canada Goose	None
Gatty's Bridge, Bokiddick Stream SX 05531 57953	None	Hemlock Water Dropwort
Treffry Viaduct, Par River, SX 05650 57179	None	None
Lady Rashleigh Mine, Par River, SX 06451 56509	Dipper (seen).	None
Par Beach slipway, SX 0776 53261	Gulls	None
Polmear Stream, Ship Inn, SX 08749 53417	None	None

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3. Geographical comparison. Source: Cartographer.







Evidence of beaver activity near Helman Tor



Further evidence of beavers



Probable otter spraint near Luxulyan allotments

## H. POLLUTION SOURCES AND EVIDENCE

## 1. Visible sources of pollution (source: Cartographer)



#### 2. Recent evidence of pollution



#### 3. Evidence of pollution found during February's monitoring

Sewage discharges from sewer outfalls is filtered, so it is hard (fortunately) to see evidence from sewer outfalls. The smell noted is assumed to be sewage related but this is a subjective observation, as well as being dependent on the turbulence of the water, e.g. it is noticeable downstream from the weir at Cam Bridges. A line of foam flecks is usually observed downstream of St Austell North (STW) at Luxulyan and this is thought to be evidence of the treated effluent outfall. Section 4 lists the overflows from SWW outfalls.

LOCATION	POLLUTION
	Newspherend
Criggan Woors, SX 01882 61133	None observed.
South of Minorca Lane, Par River, SX 02657 59788	None observed.
Forkandles Farm, Molinnis Stream, SX	The water looked clear but TDS was higher than
02460 59271	a comparable stream (the Bokiddick) and this is
	thought to be connected with china clay.
Carbis Stream SX 02834 59401	The water looked clear but TDS was higher than
	a comparable stream (the Bokiddick) and this is
	thought to be connected with china clay.
Lavrean, Par River SX 03134 59164	None observed.
Treskilling, Treskilling Stream, SX 04107	Foam.
57726	
Luxulyan allotments, Par River, SX 04732	Foam.
58045	
Cam Bridges, Par River, SX 05292 57454	Foam. Smell.
Trebell Green, Bokiddick Stream SX	None observed.
0551960226	
Corgee Moor, Bokiddick Stream SX	None observed.
0593462167	
Gatty's Bridge, Bokiddick Stream SX 05531	None observed.
57953	
Treffry Viaduct, Par River, SX 05650 57179	Foam.
Lady Rashleigh Mine, Par River, SX 06451	Foam.
56509	
Par Beach slipway, SX 0776 53261	None observed.
Polmear Stream, Ship Inn, SX 08749 53417	Traffic cone.

#### 4. South West Water Storm Overflows

#### (a) WaterFit Live

South West Water has a website giving live information about storm overflows from its facilities: <u>https://www.southwestwater.co.uk/storm-overflow-map</u>. The following screenshot explains the data available.



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: <u>https://theriverstrust.org/key-issues/sewage-in-rivers</u>)



#### (b) South West Water Storm Overflows in the Par River Catchment:

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)

(Other outfalls which may affect Par Beach are not included.)



#### (c) SWW Storm Overflow spills

LOCATION/WATERCOURSE	SPILLS 2020	SPILLS 2021	SPILLS 2022	SPILLS 2023	SPILLS
					TARGET
Victoria pumping station	41	26	42	59	39 (2030)
overflow, Roche					10 (2050)
(SWW1266)					
Into Par River					
Molinnis storm overflow,	28	38	7	38	8 (2030)
Bugle (SWW0765)					27 (2050)
Into tributary of Par River					
Rescorla storm overflow,	n/a	n/a	0	0	0 (2030)
Luxulyan (SWW0987)					0 (2050)
Into 'Tributary of Par Sands					
(S)' [sic]					
Luxulyan sewage	64	55	36	80	10 (2030)
treatment works settled					8 (2050)
storm overflow, St Austell					
(SWW0694)					
Into Par River					
Tredenham Close storm	8	3	6	5	6 (2030)
overflow, Par (SWW1230)					6 (2050)
Into St Blazey stream					
Par No2 pumping station	12	2	5	8	8 (2030)
overflow, Par (SWW0519)					8 (2050)
Into Par River					

Figures for 2024 have not been posted on the map yet.

#### (d) SWW Storm Overflow spills February-March 2025:

N.B. These times have been taken from SWW's WaterFit Live Storm Overflows map. It isn't possible to search earlier spills, only current information, so some may have been missed. This table has been compiled in good faith but may contain errors so <u>should not</u> be relied on: it is indicative only.

LOCATION/WATERCOURSE	SPILLAGES	TOTAL SPILLAGE DURATION FEBRUARY 2025
Victoria pumping station overflow, Roche (SWW1266) Into Par River	Started: 19 Feb 2025 19:58   Stopped: 19 Feb 2025 20.21   Duration: 3 minutes   Started: 21 Feb 2025 7:40   Stopped: 21 Feb 2025 8.06   Duration: 26 minutes   Started: 23 Feb 2025 17:21   Stopped: Unsure   Duration: Unknown   Started: 24 Feb 2025 5:54   Stopped: 24 Feb 2025 6:38   Duration: 44 minutes   Started: 26 Feb 2025 5:32   Stopped: 26 Feb 2025 6:28   Duration: 56 minutes	2 hours 9 minutes
	Started: 24 Feb 2025 5:54 Stopped: 24 Feb 2025 6:38 <b>Duration: 44 minutes</b> Started: 26 Feb 2025 5:32 Stopped: 26 Feb 2025 6:28 <b>Duration: 56 minutes</b>	

Molinnis storm overflow,	Started: 19 Feb 2025 19:50	3 hours 22 minutes
Bugle (SWW0765)	Stopped: 19 Feb 2025 20:54	
Into tributary of Par River	Duration: 1 hour 4 minutes	
	Started: 21 Feb 2025 7:58	
	Stopped: 21 Feb 2025 8:48	
	Duration: 50 minutes	
	Started: 23 Feb 2025 17:28	
	Stopped: Unsure	
	Duration: Unknown	
	Started: 26 Feb 2025 5:32	
	Stopped: 26 Feb 2025 7:00	
	Duration: 1 hour 28 minutes	
Rescorla storm overflow,	Started: 23 Feb 2025 17:46	>27 minutes
Luxulyan (SWW0987)	Stopped: 24 Feb 2025 Unsure	
Into 'Tributary of Par	Duration: Unknown	
Sands (S)' [sic]	Started: 24 Feb 2025 5:46	
	Stopped: 24 Feb 2025 6:13	
	Duration: 27 minutes	
Luxulyan sewage	Started: 19 Feb 2025 19:20	250 hours 16 minutes
treatment works settled	Stopped: 23 Feb 2025 4:53	(including March 1-2)?
storm overflow, St	Duration: 81 hours 33 minutes?	
Austell (SWW0694)	Started: 23 Feb 2025 11:25	(Feb only: 214 hours 8
Into Par River	Stopped: 2 <sup>nd</sup> Mar 2025 12:08	minutes?)
	Duration: 168 hours 43	N.B. On Sunday 2 <sup>nd</sup> March,
	minutes (132 hours 35 minutes	the website reported the
	23-28 Feb)? (If there were	most recent spillage as <u>144</u>
	interruptions to the spillage	hours 43 minutes, so the
	within this period, this figure	figures in this report may be
	may be an over-statement.)	inaccurate.
Tredenham Close storm	Started:	
overflow, Par	Stopped:	
(SWW1230)	Duration: None recorded	
Into St Blazey stream		
Par No2 pumping station	Started:	
overflow, Par	Stopped:	
(SWW0519)	Duration: None recorded	
Into Par River		

#### J. SUMMARY OF WESTCOUNTRY RIVERS TRUST'S 2024 REPORT CARDS

Westcountry Rivers Trust (WRT) is a charity dedicated to improving the quality of our rivers and their associated habitats in the south-west of England. The citizen science work that they organise and support is producing valuable, up-to-date evidence, complementing the excellent, professional work of the (badly understaffed and under-resourced Environment Agency). Every year the WRT produces report cards on most waterbodies that are monitored by volunteers. This table gives extracts from the 2024 reports for some of the watercourses in the Par River catchment. The full report cards are available for anyone interested.

#### TDS = Total Dissolved Solids

PO4 = Phosphates

#### T = Temperature

#### **POL = Pollution**

RIVER/STREAM	REPORT CARD VERDICT 2024				
Upper Par River	A Excellent 80-100   B Good 60-79   C Fair 40-59   D Poor 20-39   E Very Poor 0-19				
Lower Par River	A Excellent 80-100   B Good 60-79   C Fair 40-59   D Poor 20-39   E Very Poor 0-19				
Tywardreath Stream (Treesmill Stream in these reports)	A Excellent 80-100   B Good 60-79   C Fair 40-59   D Poor 20-39   E Very Poor 0-19				

Polmear Stream	1			_	TDS		
	Α	Excellent	80-100		73		
	В	Good	60-79		Overall Sco	re	
	С	Fair	40-59	PO <sub>4</sub> 62	B 74	POL 79	
	D	Poor	20-39		<u>U</u>		
	E	Very Poor	0-19		Т		
					84		

Summaries of the more detailed, professional Environment Agency findings can be found in the Catchment Data Explorer website (<u>https://environment.data.gov.uk/catchment-planning/OperationalCatchment/3352</u>).



Signs of spring on the riverbank

#### K. 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 (<u>https://wrt.org.uk/project/become-a-citizen-scientist/</u>). Results are logged on the Cartographer website. The support and advice given by Ross Tonkin, Lloyd Paynter, Chloe Lake, 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 and Callum Lewis 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 and Joan Farmer, 11<sup>th</sup> March 2025