

## Backstop Improvement Condition Extension Report

*This document has been submitted to explain and evidence the need for an extension to the 12-month Backstop Improvement Condition, which has been issued to Dŵr Cymru as part of the Review of Permits process, and the subsequent investment programme of works.*

<b>WwTW Name</b>	CARROG STW
<b>Permit Number</b>	CM0000501
<b>Catchment</b>	Dee
<b>Water Body</b>	Dee - Ceiriog to Alwen
<b>Can the site meet the total Phosphorus backstop limits now</b>	No
<b>Explanation</b>	<ul style="list-style-type: none"> <li>No phosphorus removal processes installed on site currently.</li> <li>Current long-term mean average performance 5.8 mg/l Ave</li> </ul>
<b>Can the site meet the total Phosphorus in 12 months</b>	No
<b>Explanation</b>	<ul style="list-style-type: none"> <li>Current on-site assets cannot be optimised further to meet AMP8 P condition in 12 months.</li> <li>The current works' assets would not allow for immediate dosing due to inadequate turbulence which cannot be addressed in 12 months.</li> <li>The current access via the public road is a single track, tight for a car, no construction access currently in place</li> <li>Currently site is de-sludged by small tractor, which would not be suitable for more frequent sludge removal which would be required once site is dosed.</li> <li>Design and installation of additional assets is required.</li> <li>Currently inadequate footprint on site to host the required additional assets.</li> </ul>
<b>Primary Extension Category</b>	Land Purchase Risk
<b>Secondary Extension Category</b>	Large reconfiguration of site required
<b>Headline category of solution</b>	Single Point Dosing and Site reconfiguration
<b>Details of proposed solution</b>	Scheme solution at design stage currently, more information can be shared shortly.
<b>Land purchase required</b>	Yes anticipated, but to be confirmed at detailed design
<b>Planning required</b>	Yes anticipated, but to be confirmed at detailed design
<b>Protected Area surveys &amp; Ecology approvals</b>	Yes
<b>NBS Candidate</b>	No

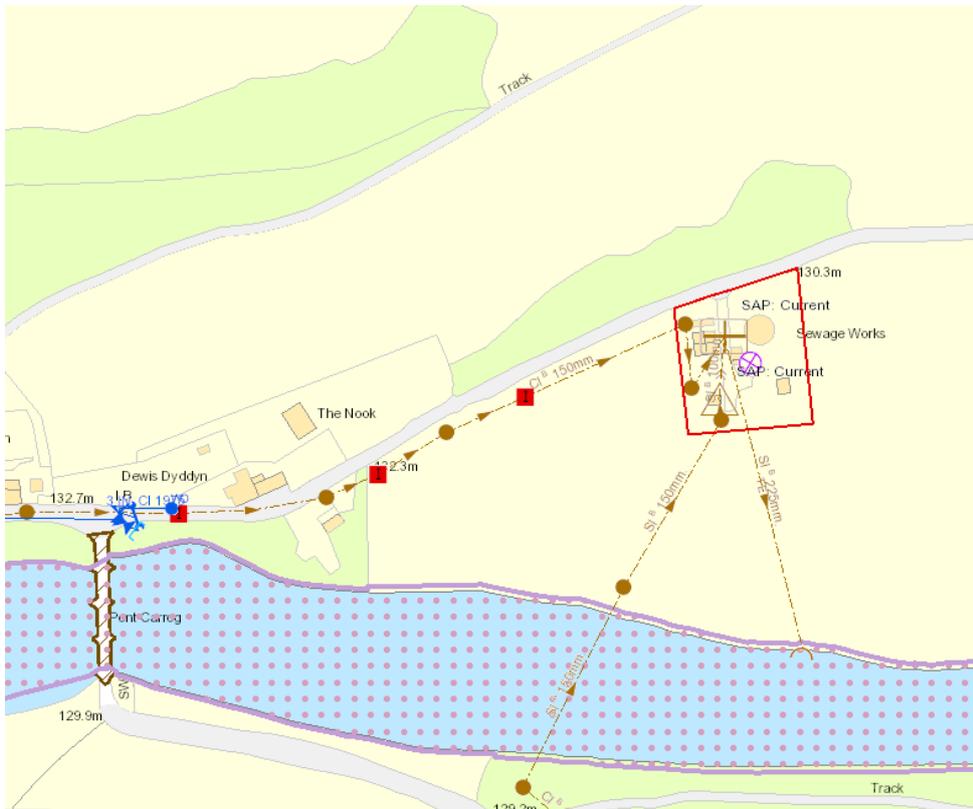
Partnership / Multi sector scheme candidate | No

<b>Extension Requested</b>	36 months
<b>Date requested on extended permit Improvement Condition</b>	28 <sup>th</sup> January 2028
<b>Date submitted to NRW</b>	05/07/2024
<b>DCWW senior Signature</b>	<i>K Howard</i> Kate Howard
<b>NRW Senior Signature</b>	

**Appendix**

**A1.**

Photo of current assets on site and surrounding space remaining. And GIS and Areal image of WwTW, of DCWW’s existing landholding. Demonstrating there is no further room to expand without further land purchase.





## A2. Raw sample data

	<b>BOD</b>	<b>Ammoniacal Nitrogen</b>	<b>Suspended solids</b>	<b>Ortho phosphate</b>	<b>Total Phosphorus</b>
	<b>mg/L</b>	<b>mg/L</b>	<b>mg/L</b>	<b>mg/L</b>	<b>mg/L</b>
<b>Date</b>	<b>Result Val</b>	<b>Result Val</b>	<b>Result Val</b>	<b>Result Val</b>	<b>Result Val</b>
25/Jan/23 08:40	22	12.2	42	5.26	6.11
31/Jan/23 10:10	19	11	24	5.72	6.44
09/Feb/23 10:00	8	11.8	14	5.99	6.47
07/Jun/23 07:41				7.2	8.2
10/Jul/23 08:50	17	12.1	31	5.65	6.58
20/Jul/23 09:55	13	14.2	25	6.37	6.92
28/Jul/23 09:44				5.28	5.5
08/Aug/23 11:42				5.09	5.8
14/Aug/23 11:10	15	11.5	54	5.46	6.79
25/Aug/23 10:40	6	6.19	21	5.29	5.68
01/Sep/23 12:46	28	12	34	5.9	6.89
19/Sep/23 13:22				3.89	4.67
02/Oct/23 10:20	8	2.34	9	3.6	4.03
09/Oct/23 15:05	8	6.78	19	5.19	5.78
10/Nov/23 08:30	11	3.54	22	2.64	3.28
16/Nov/23 10:39		2.64		2.76	3.04
01/Dec/23 10:54		9.32		4.65	5.2
26/Jan/24 12:40	16	9.7	29	4.8	5.39
30/Jan/24 08:53		9.63		4.36	5
27/Feb/24 07:52		7.99		3.83	4.47
18/Mar/24 09:04		11.3		5.36	6.1
22/Apr/24 08:27		12.9		6.26	6.9