

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.

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

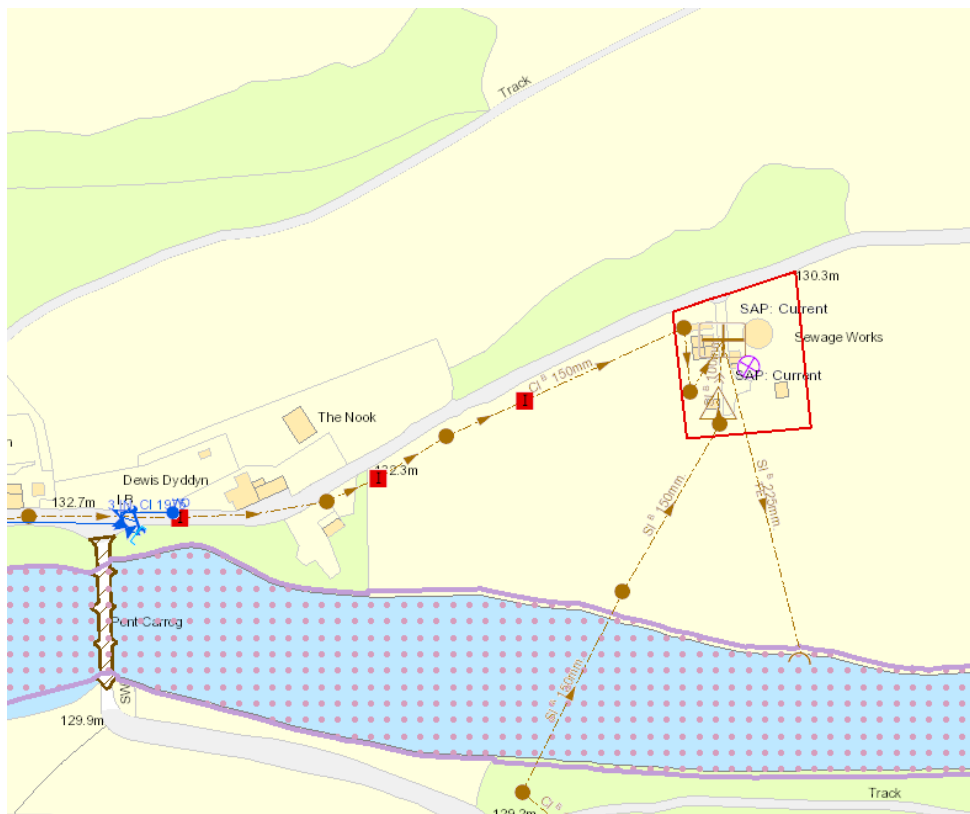
Partnership / Multi sector scheme candidate | No

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

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

	BOD	Ammoniacal Nitrogen	Suspended solids	Ortho phosphate	Total Phosphorus
	mg/L	mg/L	mg/L	mg/L	mg/L
Date	Result Val	Result Val	Result Val	Result Val	Result Val
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