

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	LLANARMON YN IAL STW
Permit Number	CM0001201
Catchment	Dee
Water Body	Alyn - upstream Dolfechlas Brook
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 mean average long-term performance 5.3 mg/l (Peak in excess of 7.9 mg/l in 2023)
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. Design and installation of additional assets required. Currently no footprint on site to host the required additional assets. Substantial investment and increased footprint required to meet the backstop limit.
Primary Extension Category	Land Purchase Risk
Secondary Extension Category	Nature Based Solution (reedbed)
Headline category of solution	NBS
Details of proposed solution	<ul style="list-style-type: none"> Upgrades Inlet Screens (6mm 2D), c/w launder and skip ARM Phos reedbed ARM Phos feed pumps + wetwell
Land purchase required	Yes
Planning required	Yes
Protected Area surveys & Ecology approvals	Yes
NBS Candidate	Yes
Partnership / Multi sector scheme candidate	No
Extension Requested	36 months
Date requested on extended permit Improvement Condition	26 th January 2028
Date submitted to NRW	19/04/2024

DCWW senior Signature

L. Hamer

NRW Senior Signature

Appendix

Appendix 1

GIS and Areal image of WwTW, with 'redline boundary' of DCWW's existing landholding. Demonstrating there is no further room to expand without further land purchase.





Appendix 2 Raw Sample Data

Date	BOD ATU	Ammoniacal Nitrogen	Suspended solids	Orthophosphate	Total Phosphorus
07/Feb/23 11:25	8	3.52	15	6.09	6.34
10/Feb/23 09:40	11	3.04	16	6.55	7.14
06/Apr/23 08:34				3.99	4.6
23/May/23 08:26				7.65	7.9
08/Jun/23 08:46				9.17	9.2
12/Jul/23 08:50	8	1.15	11	3.2	3.58
25/Jul/23 10:55	6	0.49	9	2.41	2.72
26/Jul/23 11:38				3.86	3.93
25/Aug/23 08:15	14	1.78	12	6.35	6.68
25/Aug/23 10:57				6.38	6.9
01/Sep/23 12:51	14	1.28	19	5.24	5.85
14/Sep/23 09:51				4.69	4.82
02/Oct/23 12:08	8	1.1	9	1.4	1.75

26/Oct/23 09:17				2	2.27
29/Nov/23 12:00				1.28	1.57
11/Dec/23 10:51				0.89	1.16