

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	PANDY STW
Permit Number	CM0022201
Catchment	Dee
Water Body	Ceiriog - confluence Dee to Teirw
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 10 mg/l Site peaks above 14mg/l on dry months
Can the site meet the total Phosphorus in 12 months	No
Explanation	<ul style="list-style-type: none"> Current access is via a footpath only. Desludging is by tractor and trailer as there is no tanker access. 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	Nature Based Solution and Land Purchase Risk
Secondary Extension Category	Large site refurbishment and power upgrade required
Headline category of solution	Nature Based Solution
Details of proposed solution	<ul style="list-style-type: none"> Power installation (no current power on site) Lifting pumping station Installation of ARMphos New filter bed New humus tank and desludge pump(s) New humus tank feed P/S and pipework Recirc P/S and pipework
Land purchase required	Yes
Planning required	Yes
Protected Area surveys & Ecology approvals	Yes
NBS Candidate	Yes

Partnership / Multi sector scheme candidate | Yes

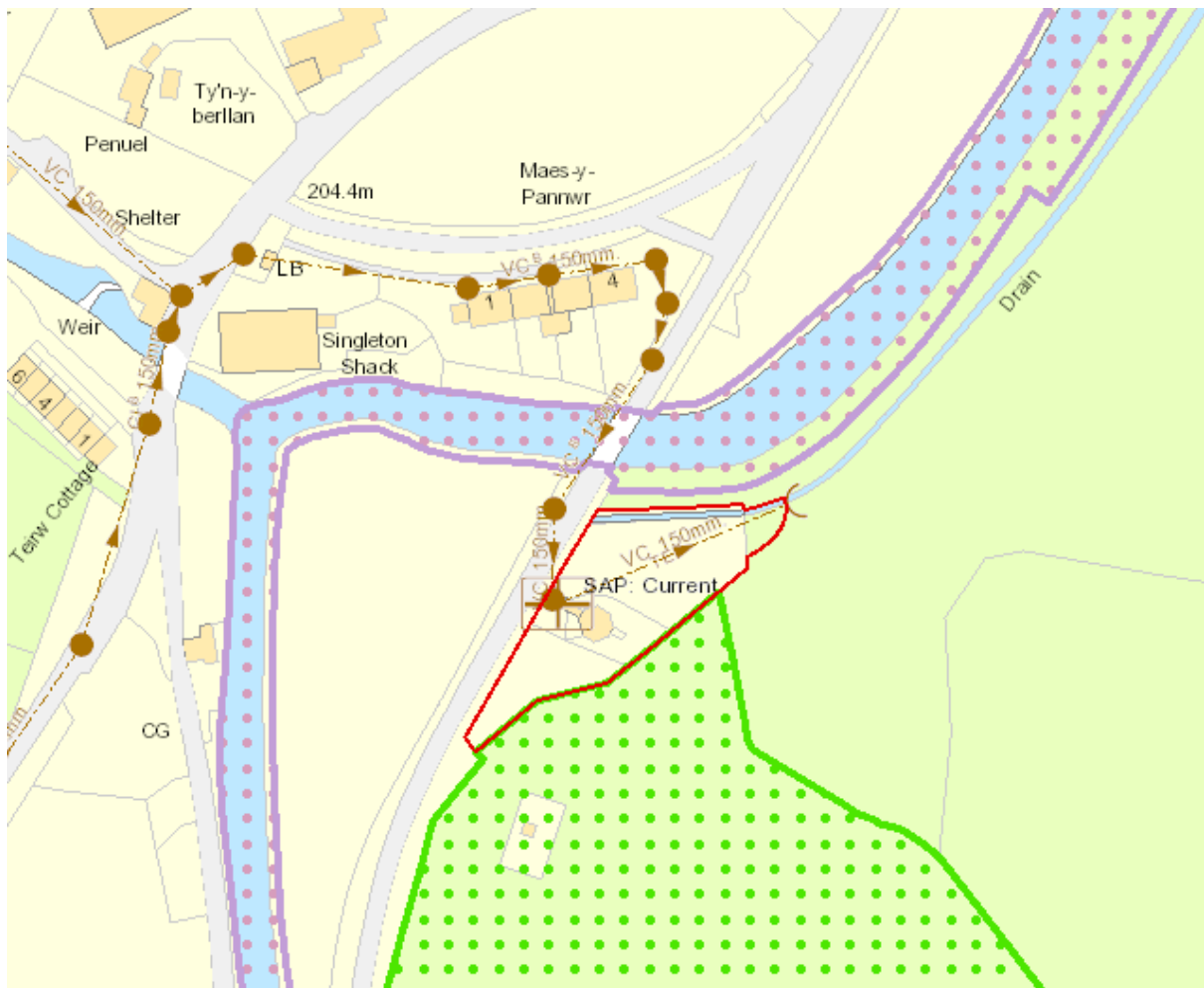
Extension Requested	36 months
Date requested on extended permit Improvement Condition	26 th January 2028
Date submitted to NRW	24 th of May 2024
DCWW senior Signature	<i>L. Harmer</i>
NRW Senior Signature	

Appendix

A1.

Photo of current assets on site and surrounding space remaining. And GIS and Aerial image of WwTW, with 'redline boundary' of DCWW's existing landholding. Demonstrating there is no further room to expand without further land purchase, considering the river and tributary to the East and boarder of mature trees to the South, North and west of the existing land parcel.





A2. Raw sample data

Date	BOD ATU	Ammoniacal Nitrogen	Suspended solids	Ortho phosphate	Total Phosphorus
25/Jan/23 11:00	48	12.2	450	2.59	4.27
01/Feb/23 10:00	11	18.8	199	6.57	7.81
07/Feb/23 09:50	210	64	150	13.75	14.11
28/Apr/23 10:15	2582	40.9	17142	16.17	
19/May/23 09:45	47	27.9	106	7.69	8.81
25/May/23 09:50	141	52.6	690	11.14	15.24
06/Jun/23 12:05	79	32.8	664	11.77	17.41
12/Jun/23 13:00	123	25.3	1387	6.9	
28/Jun/23 09:30	29	19.7	69	12.08	12.4
31/Jul/23 11:30	47	13.4	114	9.96	11.61
11/Aug/23 10:00	46	12.3	128	8.74	10.33
25/Aug/23 09:30	109	29.8	276	7.22	9.02
29/Sep/23 08:25	20	7.84	55	3.7	5.24