

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	HOLT STW
Permit Number	CM0102001
Catchment	Dee
Water Body	Dee - Chester Weir to Ceiriog
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 5.2 mg/l Ave. (Peak in excess of 8mg/l)
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. The current works' assets would not allow for adequate dosing Design and installation of additional assets 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	Dosing solution
Details of proposed solution	<ul style="list-style-type: none"> New Screen New RBC (flow split between existing and new) 2 new HSTs to replace the existing ones. New sludge holding tank New ferric dosing package plant New sodium carbonate dosing plant (TBC) New safety shower New potable water booster set Automatic storm return valve
Land purchase required	Yes
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

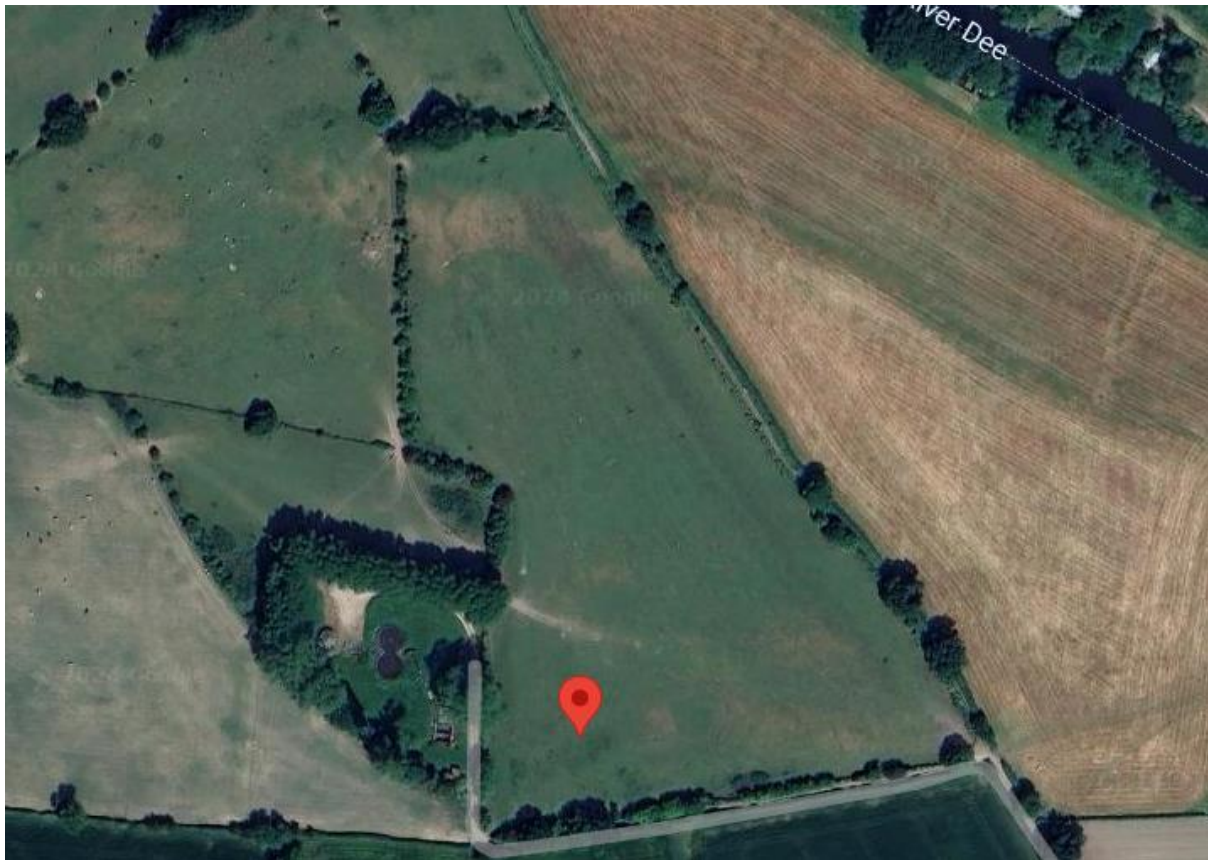
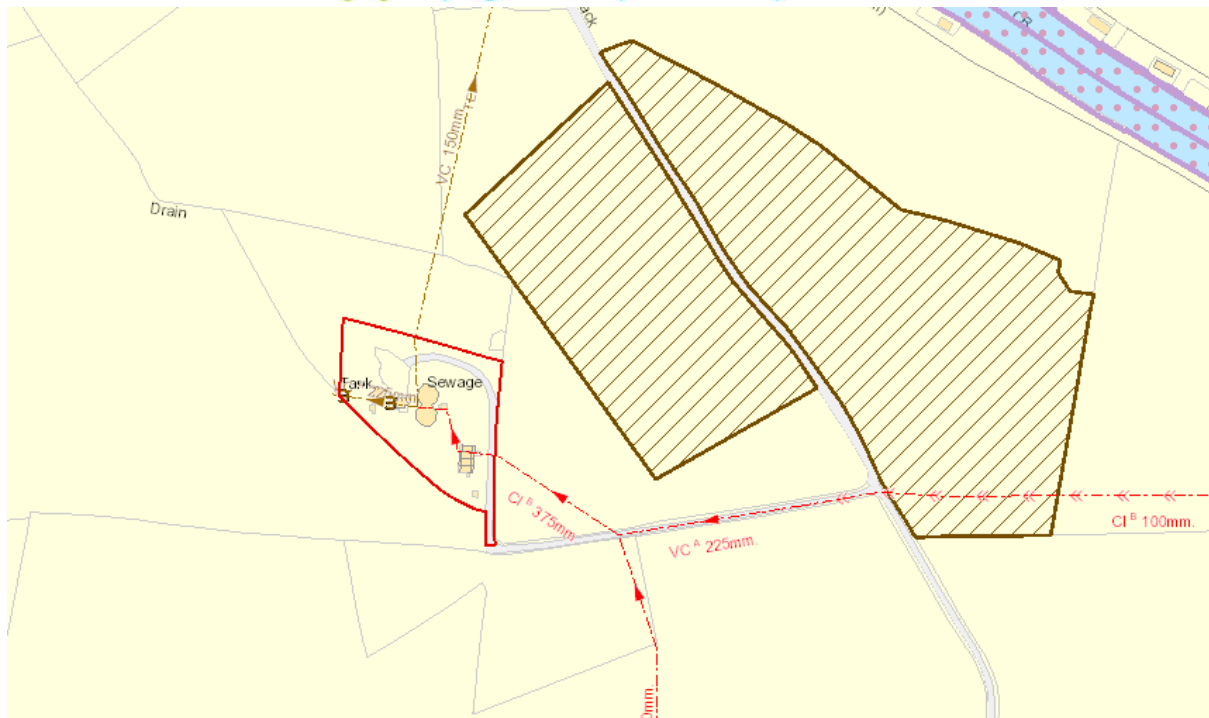
Extension Requested	36 months
Date requested on extended permit Improvement Condition	28 th January 2028
Date submitted to NRW	24 th of May 2024
DCWW senior Signature	<i>L. Hamill</i>
NRW Senior Signature	

Appendix

A1.

Photo of current assets on site and surrounding space remaining. And 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, considering the mature trees to the North East of the WwTW.





A2. Raw sample data

Date	BOD ATU	Ammoniacal Nitrogen	Suspended solids	Ortho phosphate	Total Phosphorus
03/Jan/23 10:03				2.64	3.56
06/Jan/23 13:40	32	17.5	45	3.08	4.29
10/Jan/23 13:55	17	4.97	29	1.43	2.09
11/Jan/23 14:45	24	8.82	39	1.86	2.82
18/Jan/23 12:30	30	15.3	44	2.44	3.59
25/Jan/23 13:35	31	22.7	32	4.52	5.31
16/Feb/23 07:40				6.05	7.07
07/Mar/23 08:29				6.35	7.74
21/Apr/23 07:03				6.19	7.16
25/May/23 10:51				7.72	8.81
04/Jul/23 09:55				6.8	7.36
07/Aug/23 11:37				5.42	6.12
01/Sep/23 10:32				5.51	6.34
06/Oct/23 10:03				5.3	6.17
03/Nov/23 12:29				2.53	3.16
06/Dec/23 12:47				2.89	3.81
26/Jan/24 10:26				3.51	4.21