

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	OVERTON STW
Permit Number	CM0188601
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 mean average long-term performance 6.9 mg/l Ave. (Peak in excess of 10 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. • Substantial reworking and reconfiguration required • Design and installation of additional assets required. • Currently no footprint on site to host the required additional assets and topography of site doesn't allow for temporary set up in required location. • Current inlet/PST set up not conducive to effective ferric dosing. • Substantial investment and increased footprint required to meet the backstop limit.
Primary Extension Category	Land Purchase Risk
Secondary Extension Category	Substantial redesign and investment required to allow for dosing set up
Headline category of solution	Conventional Dosing
Details of proposed solution	<ul style="list-style-type: none"> • New 6mm-2D inlet screen c/w launder and skip • Chemical dosing (ferric) c/w storage kiosk, safety shower and bunded delivery area • Sludge auto de-sludge • 1No Sludge Holding Tank • 1No additional Humus Settlement Tank • Upgrade to 3 phase power • Recirculation pumping station • (align programme with IMP6 driver)

Land purchase required

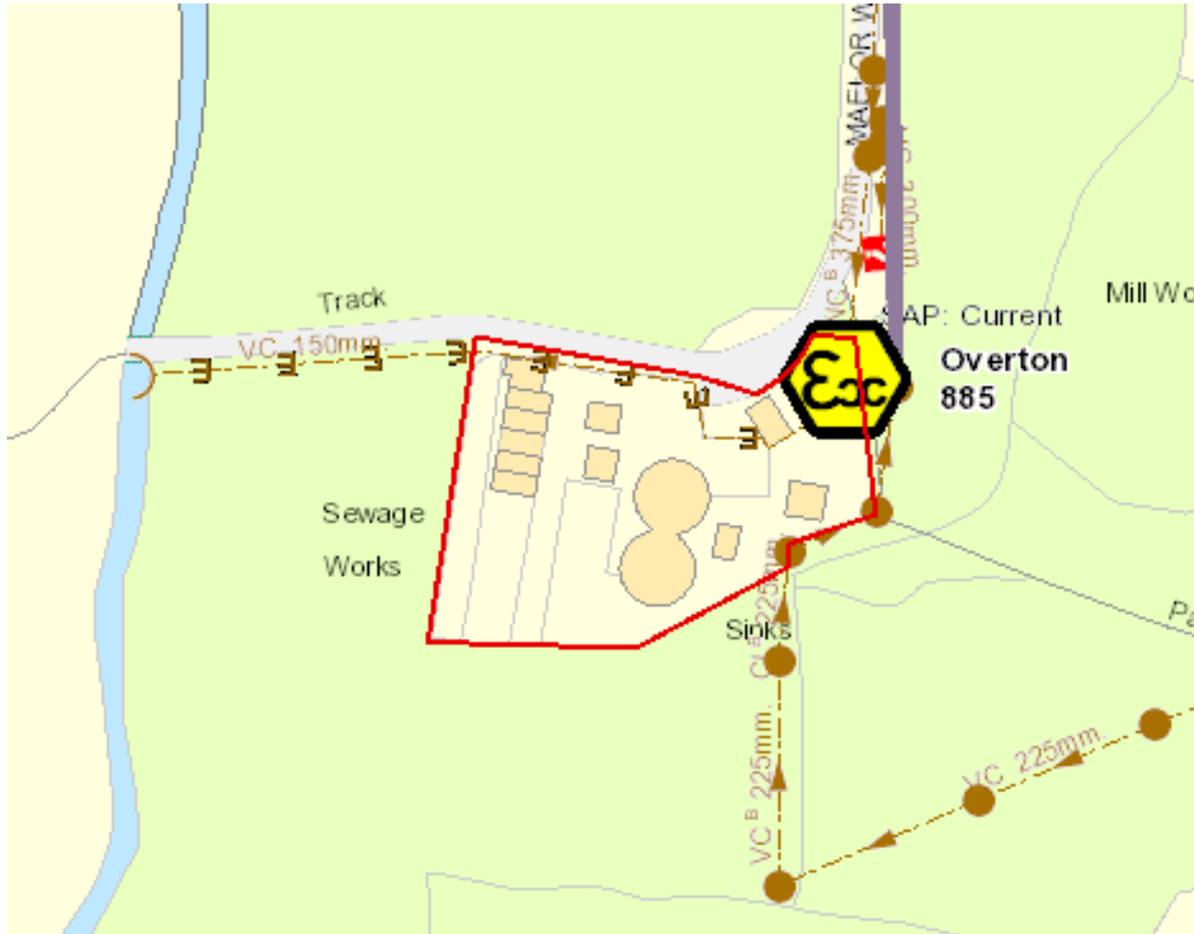
Yes

Planning required	Yes
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	26 th January 2028
Date submitted to NRW	26/04/2024
DCWW senior Signature	<i>L Harrell</i>
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

Site Name	Date	BOD ATU	Ammoniacal Nitrogen	Suspended solids	Ortho phosphate	Total Phosphorus
OVERTON WWTW (OSM-BOD-40).	10/Jan/22 09:57	14	20.99	20	7.19	7.8
OVERTON WWTW (OSM-BOD-40).	04/Feb/22 08:20	14	7.03	17	4.51	4.91
OVERTON WWTW (OSM-BOD-40).	03/Mar/22 11:07	11	6.41	19	6.6	7.2
OVERTON WWTW (OSM-BOD-40).	03/May/22 11:00	18	2.85	25	10.28	10
OVERTON WWTW (OSM-BOD-40).	04/Jul/22 11:25	12	2.7	16	9.71	9.6
OVERTON WWTW (OSM-BOD-40).	14/Sep/22 10:22	9	2.58	10	7.13	7.5
OVERTON WWTW (OSM-BOD-40).	10/Oct/22 11:13	11	1.06	19	5.7	6.2
OVERTON WWTW (OSM-BOD-40).	09/Nov/22 09:46	10	2.4	20	3.95	4.52
OVERTON WWTW (OSM-BOD-40).	06/Jan/23 12:10	8	12	11	5.95	6.75
OVERTON WWTW (OSM-BOD-40).	10/Jan/23 12:30	11	5.06	44	3	3.59
OVERTON WWTW (OSM-BOD-40).	11/Jan/23 13:30	8	8.43	17	4.49	4.84
OVERTON WWTW (OSM-BOD-40).	18/Jan/23 11:10	22	26.5	46	4.71	5.65
OVERTON WWTW (OSM-BOD-40).	25/Jan/23 10:50	22	8.36	23	7.04	7.33

VERTON WWTW (OSM-BOD-40).	09/Feb/23 12:10	25	21.1	59	7.68	8.86
VERTON WWTW (OSM-BOD-40).	04/May/23 09:17				8.06	9
VERTON WWTW (OSM-BOD-40).	19/Jun/23 09:23				4.91	5.6
VERTON WWTW (OSM-BOD-40).	10/Jul/23 07:00				6.48	7
VERTON WWTW (OSM-BOD-40).	30/Aug/23 10:42				7.39	7.4
VERTON WWTW (OSM-BOD-40).	06/Dec/23 10:56				3.82	4.22
VERTON WWTW (OSM-BOD-40).	03/Jan/24 07:35	7	0.91	19		3.14

Appendix 3 Current process

