

## 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.*

<b>WwTW Name</b>	OVERTON STW
<b>Permit Number</b>	CM0001201
<b>Catchment</b>	Dee
<b>Water Body</b>	Dee - Chester Weir to Ceiriog
<b>Can the site meet the total Phosphorus backstop limits now</b>	No
<b>Explanation</b>	<ul style="list-style-type: none"> <li>No phosphorus removal processes installed on site currently.</li> <li>Current mean average long-term performance 6.9 mg/l Ave. (Peak in excess of 10 mg/l in 2023)</li> </ul>
<b>Can the site meet the total Phosphorus in 12 months</b>	No
<b>Explanation</b>	<ul style="list-style-type: none"> <li>Current on-site assets cannot be optimised further.</li> <li>Substantial reworking and reconfiguration required</li> <li>Design and installation of additional assets required.</li> <li>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.</li> <li>Current inlet/PST set up not conducive to effective ferric dosing.</li> <li>Substantial investment and increased footprint required to meet the backstop limit.</li> </ul>
<b>Primary Extension Category</b>	Land Purchase Risk
<b>Secondary Extension Category</b>	Substantial redesign and investment required to allow for dosing set up
<b>Headline category of solution</b>	Conventional Dosing
<b>Details of proposed solution</b>	<ul style="list-style-type: none"> <li>New 6mm-2D inlet screen c/w launder and skip</li> <li>Chemical dosing (ferric) c/w storage kiosk, safety shower and bunded delivery area</li> <li>Sludge auto de-sludge</li> <li>1No Sludge Holding Tank</li> <li>1No additional Humus Settlement Tank</li> <li>Upgrade to 3 phase power</li> <li>Recirculation pumping station</li> <li>(align programme with IMP6 driver)</li> </ul>

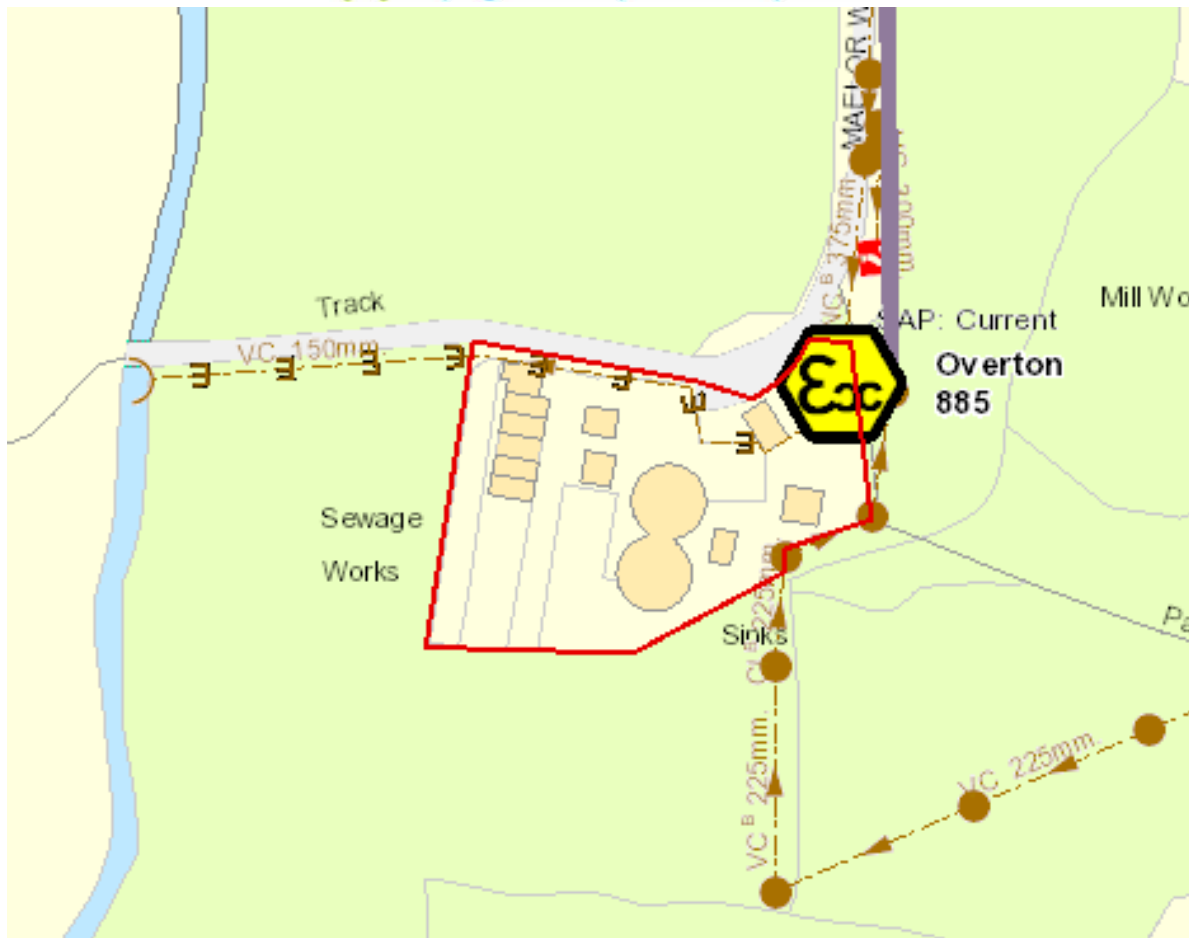
**Land purchase required** | Yes

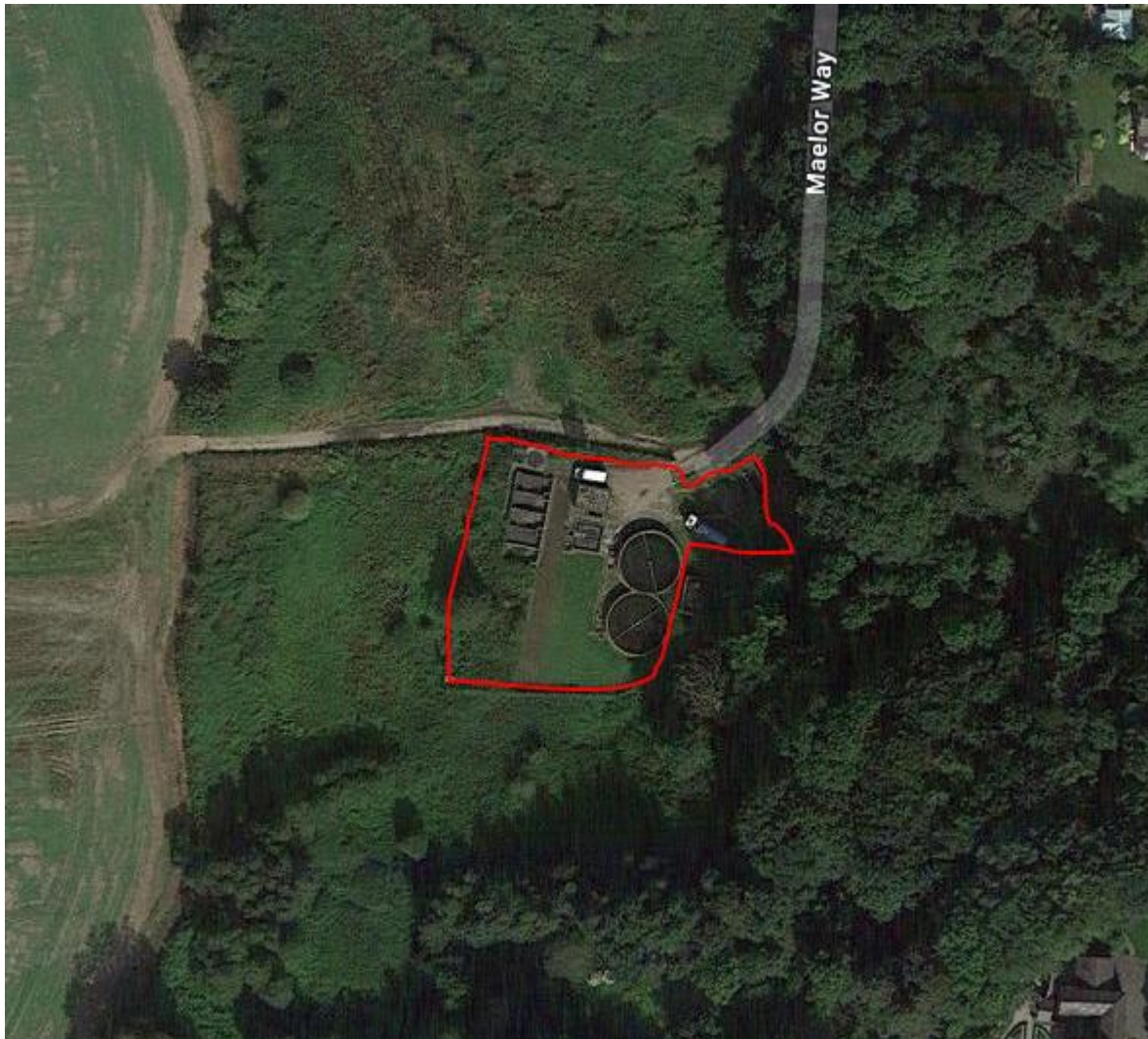
Planning required	Yes
Protected Area surveys & Ecology approvals	Yes
NBS Candidate	No
Partnership / Multi sector scheme candidate	No
Extension Requested	36 months
Date requested on extended permit Improvement Condition	26 <sup>th</sup> January 2028
Date submitted to NRW	26/04/2024
DCWW senior Signature	<i>L. Harrell</i>
NRW Senior Signature	

## Appendix

### Appendix 1

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.





## 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

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

### Appendix 3 Current process

