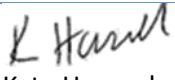


Backstop Improvement Condition Extension Report

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.

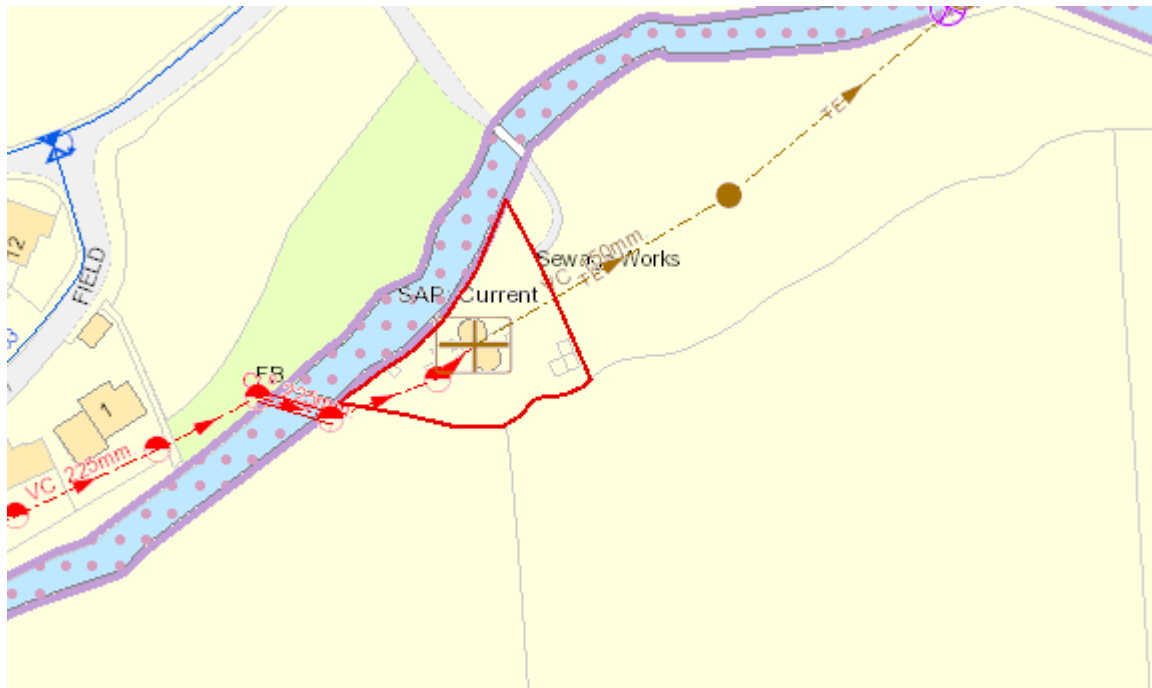
| | |
|---|--|
| WwTW Name | LLANFRYNACH STW |
| Permit Number | AD0002101 |
| Catchment | Usk |
| Water Body | Nant Menasgin - source to conf R Usk |
| Can the site meet the total Phosphorus backstop limits now | No |
| Explanation | <ul style="list-style-type: none"> No phosphorus removal processes installed on site currently. Current long-term mean average performance 5.4 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 or short term solution to be implemented Design and installation of additional assets required. Currently inadequate footprint on site to host the required additional assets. The WwTW also has an IMP5 (increase Full Flow to Treatment) driver, which needs to be aligned with this programme to ensure the site addresses all statutory obligations in the best manner possible. |
| Primary Extension Category | Land Purchase Risk |
| Secondary Extension Category | Large reconfiguration of site required |
| Headline category of solution | Scheme solution at optioneering stage |
| Details of proposed solution | Scheme solution at optioneering stage; either of the preferred solutions will require an extension. Nothing can be progressed immediately and or short term whilst a larger scheme progresses at this site. |
| Land purchase required | Yes anticipated, but to be confirmed at detailed design |
| 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 | 5/7/2024 |
| DCWW senior Signature |  Kate Howard |
| 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 boarder of mature trees surrounding the existing perimeter.





A2. Raw sample data

| Date | BOD ATU | Ammoniacal Nitrogen | Suspended solids | Ortho phosphate | Total Phosphorus |
|-----------------|---------|---------------------|------------------|-----------------|------------------|
| 06/Mar/23 12:31 | 14 | 10.2 | 28 | 4.48 | 5.05 |
| 12/Apr/23 12:04 | 8 | 1.62 | 64 | 0.57 | 1.14 |
| 27/Apr/23 11:59 | 8 | 3.52 | 25 | 2.51 | 2.96 |
| 19/May/23 13:19 | 23 | 9.57 | 44 | 6.18 | 6.79 |
| 02/Jun/23 11:30 | 22 | 13.2 | 72 | 5.99 | 6.93 |
| 24/Jul/23 11:27 | 8 | 4.58 | 25 | 4.4 | 4.98 |
| 16/Aug/23 10:59 | 9 | 6.3 | 22 | 5.77 | 6.35 |
| 22/Aug/23 10:33 | 14 | 8.47 | 38 | 5.25 | 5.8 |
| 12/Sep/23 09:50 | 17 | 4.88 | 20 | 6.25 | 6.37 |
| 02/Oct/23 09:00 | 18 | 7.22 | 30 | 8.47 | 8.72 |
| 05/Oct/23 12:14 | 9 | 3.97 | 5 | 8.07 | 7.6 |
| 24/Oct/23 08:55 | | 0.4 | 6 | 2.53 | 2.81 |