

# MCERTS - EDM Inspection Report

## Llan Penmachno WwTW

21 January 2026

Report No. CFS/ 20085v1



Version No. 25.14

<b>Site Name:</b>	Llan Penmachno WwTW	
<b>Consent/Permit Holder:</b>	Dŵr Cymru Welsh Water	
<b>Site Address:</b>	Llewelyn Street (B4406) Penmachno Conwy LL24 0PS	
<b>Site Contact:</b>	Statutory & Regulatory Maintenance Manager	
<b>Contact Phone Number:</b>	mcerts@dwrwymru.com	
<b>Site Ref or Postcode:</b>	3277	
<b>Grid Ref (Sensor):</b>	SH 79556 51318	
<b>Consent/Permit No:</b>	CG0114601	
<b>Location of EDM Sensor:</b>	Storm Overflow	
<b>Number of EDMs:</b>	1	
<b>Instrument Type:</b>	Type A (non contact) - R	
<b>Instrument/Device(s):</b>	Vega Vegapuls C22 with Vegamet 862	
<b>Level Meter Serial Number:</b>	73646423	
<b>Sensor Serial Number:</b>	73229808	
<b>Date of Inspection:</b>	21/01/2026	
<b>Inspector:</b>	Phil Rose - MI 10 018	
<b>Inspection Report No:</b>	CFS/ 20085v1	
<b>Survey Pack:</b>	D	* Kit Inventory and calibration data recorded on central QMS database
<b>Uncertainty:</b>	± 3.4 mm	<b>PASS</b>
<b>Site Compliance:</b>	Following a site inspection, the measurement system was found to meet the requirements of the Environment Agency <i>MCERTS: requirements for installing and using event duration monitors - MCERTS Performance Standard</i> . Published 28th August 2024	

# Site Details

## Site Description

Llan Penmachno WwTW is a sewage treatment works with RBC treatment (see process diagram).

## Location of Event Monitor(s)

The EDM is located above the Pumping Station Overflow Weir

## Overflow Point(s) Requiring Event Monitoring

Storm Overflow (See Process Diagram.)

## Verification / Calibration

The sensor was mounted on a rigid bracket with a removable datum plate to reference the sensor height relative to the hydraulic datum. The reference height of the datum plate has been set accurately and recorded.

## Site Maintenance Arrangements, Evidence and Suitability

A routine maintenance schedule has not been confirmed but is required as part of the consent holders Quality Management System, as audited by CSA.  
The level measurement system was found to be in a satisfactory condition at the time of the Inspection.

## MCERTS Approved Product

The installed meter has a valid MCERTS Approved product certificate. Certificate number: CSA MC210360/01

## System Observed in Operation

The EDM was observed in a storm condition at time of the inspection and the system meets the requirements of the scheme.

## Indicated Discharge Status

The indicated discharge status can be observed on site by:  
A secondary display/indicator.

## Telemetry Arrangements

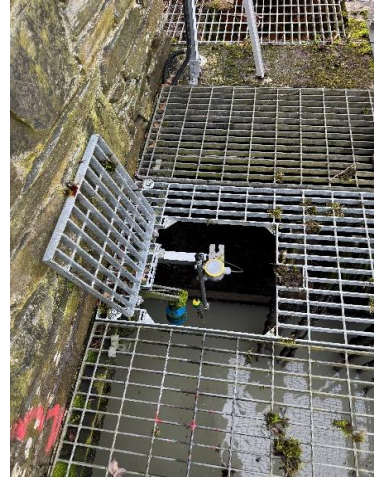
The Event Monitor data is collected on the SCADA system.  
The data is transmitted using an analogue 4/20mA signal

## Inspector's Judgements, Comments or Changes to the Setup

V1 report issued with the following amendments:  
On/Off spill points adjusted.  
Telemetry commissioned 29/01/2026



General View



EDM Sensor



EDM Display



Storm Weir



**VEGAMET 862**

#73646423 Llan Penmachno

Connected sensors



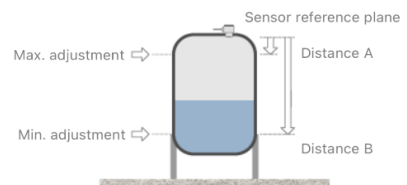
**Llan Penmachno**

VEGAPULS C 22 (#73229808)

Event Duration Monitor Calibration			
Datum Depth	2580 mm @ RED		
Relay	NA	On at	2688 mm Off at 2687 mm
Spill Height	2688 mm		Date
www.criticalflow.co.uk 01242820199		21 Oct 126	

Calibration Sticker and Serial Numbers

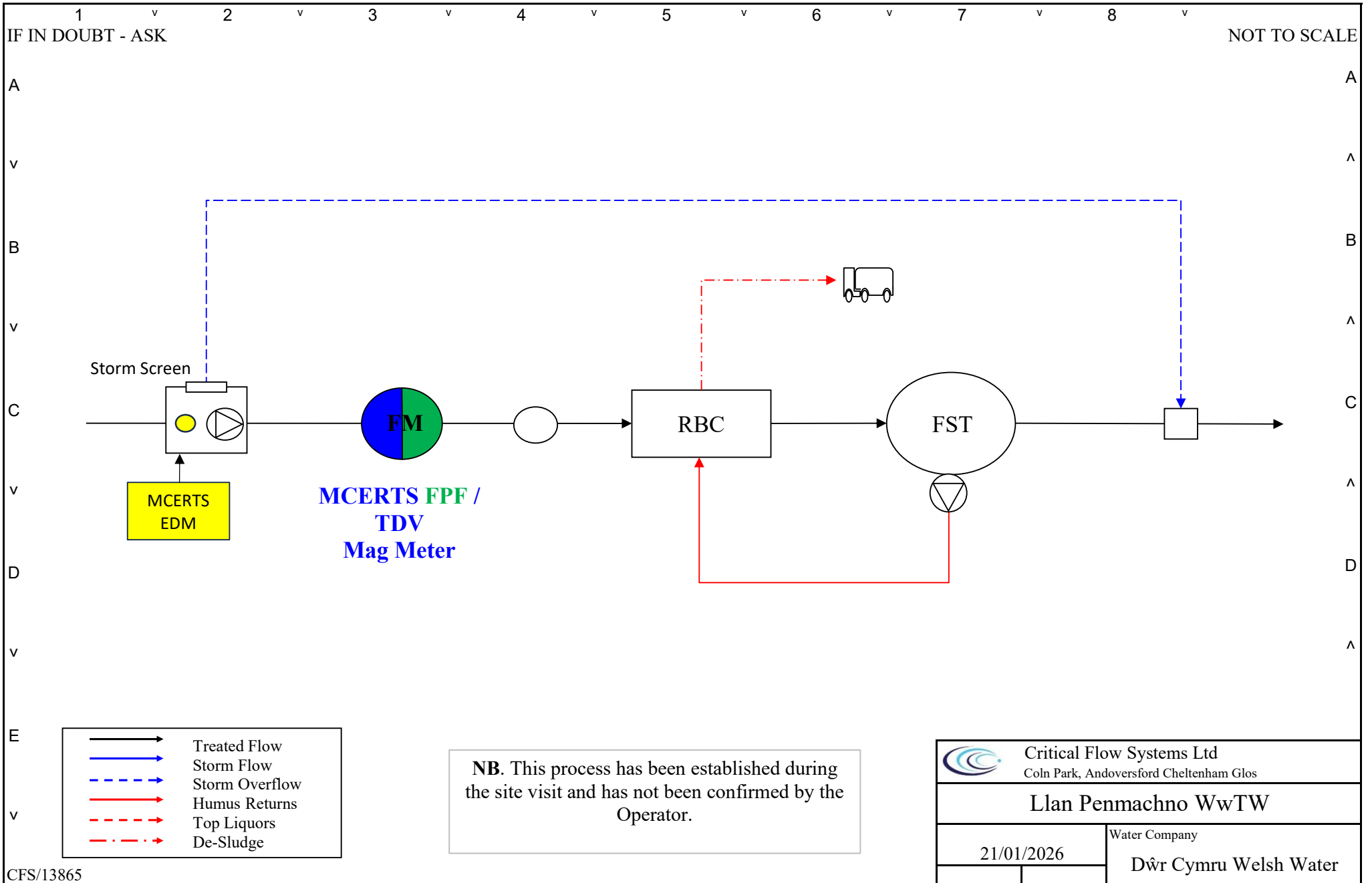
76.93 % Llan Penmachno



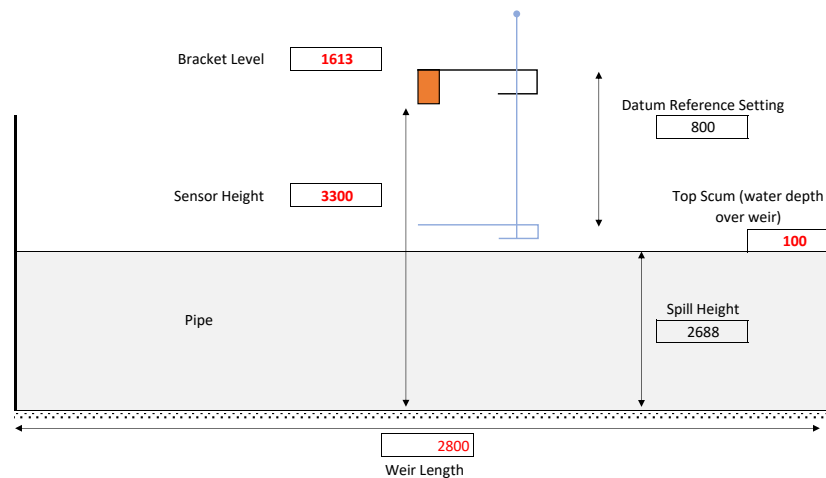
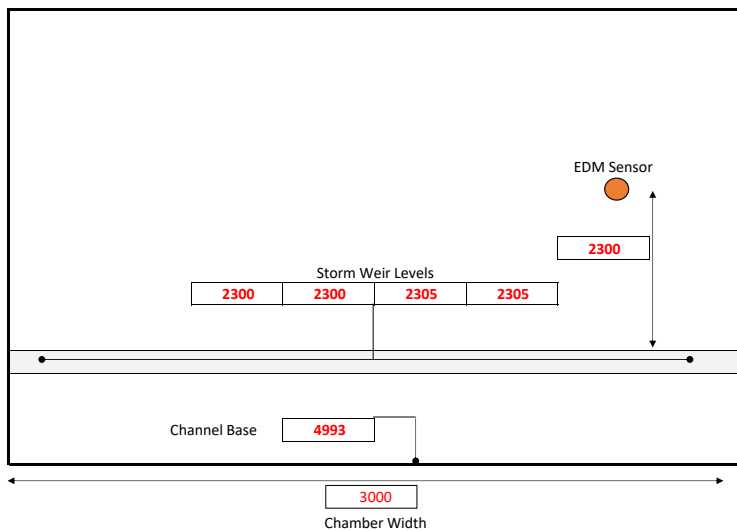
Distance A (max. adjustment)  
0 mm

Distance B (min. adjustment)  
3354 mm

Empty Space and 4/20mA Span



Site Name	Llan Penmachno WwTW		EDM Level Meter	Vega Vegapuls C22 with Vegamet 862	Location	Storm Overflow
Event Duration Monitor	Date	21 January 2026				
Total Uncertainty	3.4 mm					



Depth Readings	
2580	2580
2580	2580
2580	2580
2580	2580
2580	2580
VAR +1	1.00

Measured Temp.	0 °C
Instrument Temp.	0 °C
<b>Error</b>	<b>0.0 mm</b>
Datum Level	2580 mm
Instrument Level	2580 mm
<b>Calibration Error</b>	<b>0 mm</b>
<b>Survey Error</b>	<b>1 mm</b>
Sensor height above spill	612 mm
Accuracy	0.09 %
<b>Instrument Error</b>	<b>0.53 mm</b>
<b>Estimate of wave height</b>	<b>2 mm</b>
<b>Repeatability#1</b>	<b>0.4 mm</b>
<b>Telemetry Error</b>	<b>3 mm</b>
<b>Total Uncertainty</b>	<b>3.4 mm</b>

Sensor Height	3300 mm
Base Level	4993 mm (Staff Reading)
Lowest Weir Level	2305 mm (Staff Reading)
Spill Height	2688 mm

Analogue Output	0 mm - 4mA
	3354 mm - 20mA
Storm Event Activated	2688 mm - 16.82 mA
Event De-Activated	2687 mm - 16.82 mA

Bracket Level	1613	Staff Reading
Bobbin	Red	(800 mm)
Datum Ref. Ht.	2580	mm

Compliance Check	
Uncertainty < ±5mm	OK
Logging Intervals <2min	OK
Sensor distance to weir	OK
Sensor securely mounted	OK
Sensor Height	OK
Sunshade Required	No
Sunshade Installed	No

**Notes:** #1 Repeatability uses IS4359 14.5.1  
 Default Values: Telemetry Error for Relay = 0, for 4/20mA = 2mm  
 Total Uncertainty uses Error items in 'bold'

All dimensions in mm, unless stated otherwise.