MCERTS - EDM Inspection Report

Penrhos Camp WwTW

19 August 2025

Report No. CFS/ 18944v1

British Assessment Bureau UKAS MANAGEMENT SYSTEMS 8289
ISO 9001
QUALITY MANAGEMENT

British Assessment Bureau UKAS MANAGEMENT SYSTEMS 8289
ISO 14001
ENVIRONMENTAL MANAGEMENT

British Assessment Bureau UKAS MANAGEMENT SYSTEMS 8289
ISO 45001
HEALTH & SAFETY MANAGEMENT

Version No. 00.1

Site Information

Site Name:	Penrhos Camp WwTW
Consent/Permit Holder:	Dŵr Cymru Welsh Water
Site Address:	Polish Village Access Road, Off A499 Penrhos Gwynedd LL53 7HG
Site Contact:	Statutory & Regulatory Maintenance Manager
Contact Phone Number:	mcerts@dwrcymru.com
Site Ref or Postcode:	1755
Grid Ref (Sensor):	SH 33953 33853
Consent/Permit No:	CG0041301
Location of EDM Sensor:	Last in line overflow
Number of EDMs:	1
Instrument Type:	Type A (non contact) - R
Instrument/Device(s):	Vega Vegamet 862 with C 22
Level Meter Serial Number:	73349397
Sensor Serial Number:	73229752
Date of Inspection:	19/08/2025
Inspector:	Tom Green - MI 25 036
Inspection Report No:	CFS/ 18944v1
Survey Pack:	I
Uncertainty:	± 1.5 mm

* Kit Inventory and calibration data recorded on central QMS database

PASS

Site Compliance: Following a site inspection, the measurement system was found to meet the requirements of the Environment Agency *MCERTS: requirements for installing and using event duration monitors - MCERTS Performance Standard.* Published 28th August 2024

Site Details

Site Description
Penrhos Camp WwTW is a sewage treatment works with biological trickling filters (see process diagram).

Location of Event Monitor(s)
The EDM is located above the Dual sided storm weirs

Overflow Point(s) Requiring Event Monitoring
Last in line 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 not observed in a storm condition during the inspection. However, there is no evidence to suggest that the system would not be suitable, during a storm event.

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

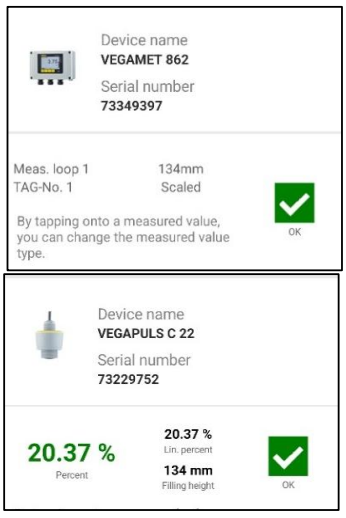
Inspector's Judgements or Comments About the Installation
V1 report issued with the following amendments: On/Off spill points adjusted. Telemetry commissioned 10/02/2026

MCERTS EDM Display

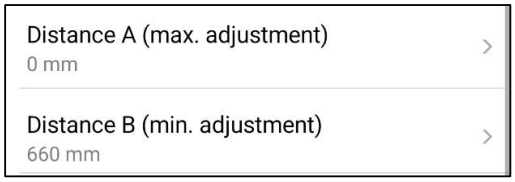
MCERTS EDM Sensor Location

MCERTS EDM Sensor

Storm Overflow Weir



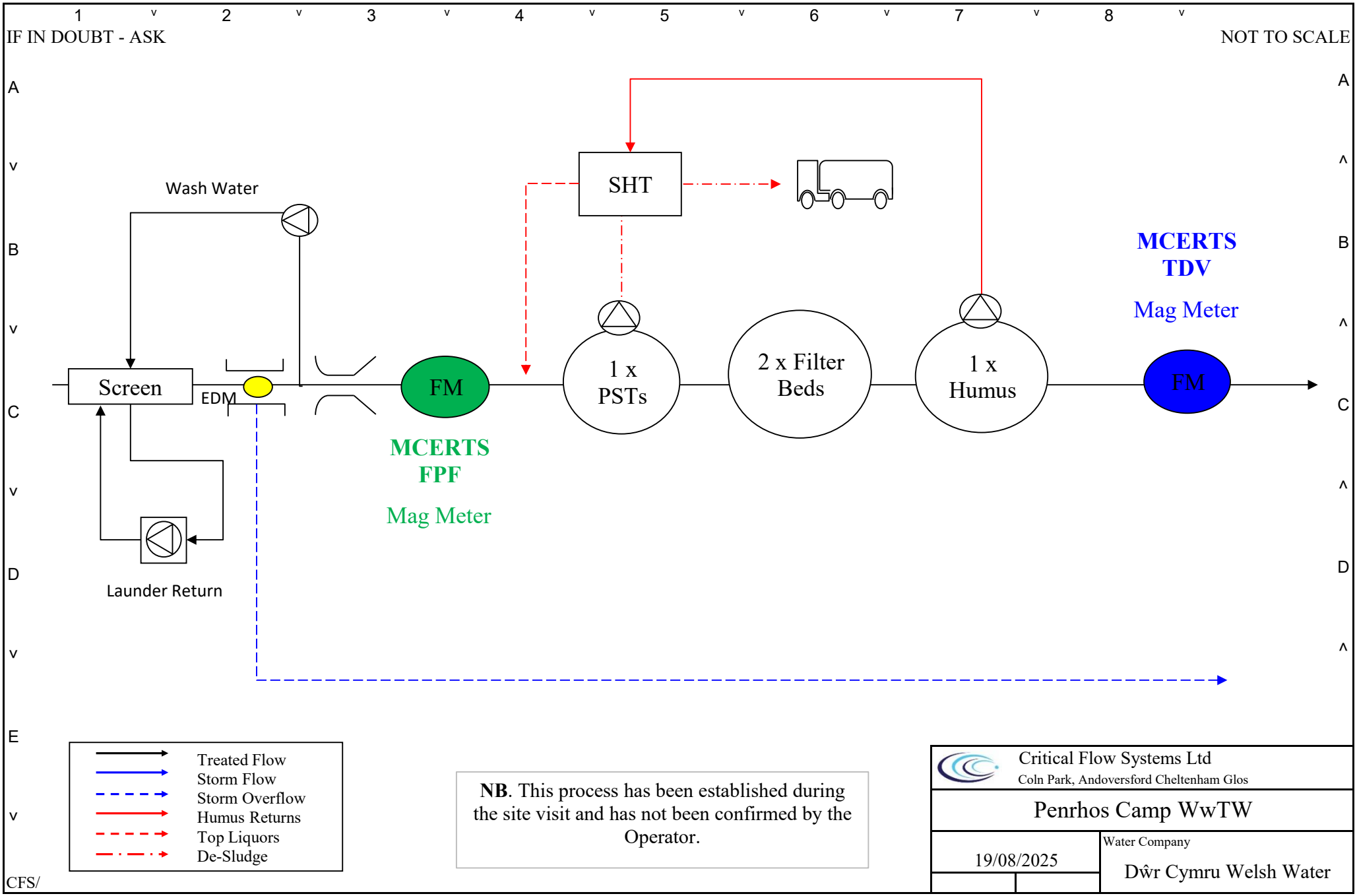
Meter & Sensor Details



Empty Distance

IF IN DOUBT - ASK

NOT TO SCALE



NB. This process has been established during the site visit and has not been confirmed by the Operator.

Critical Flow Systems Ltd
Coln Park, Andoversford Cheltenham Glos

Penrhos Camp WwTW

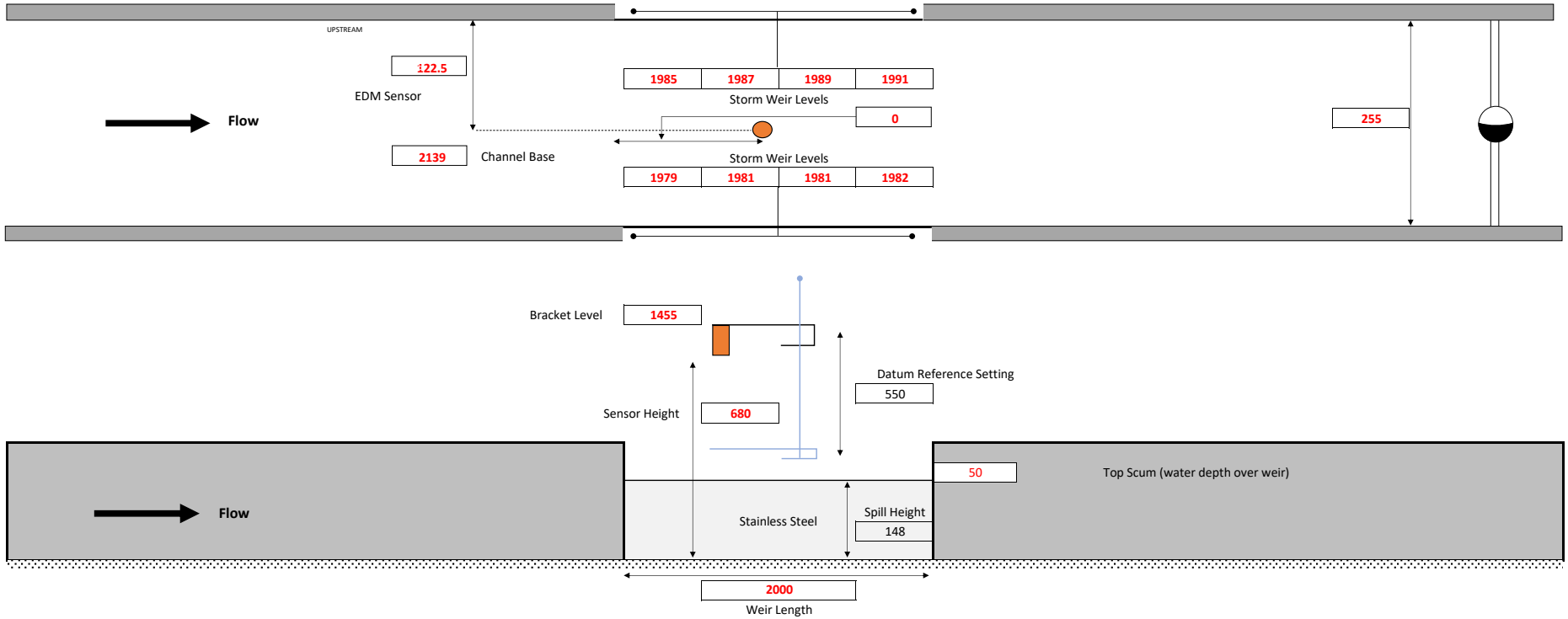
19/08/2025

Water Company
Dŵr Cymru Welsh Water

CFS/

Site Name	Penrhos Camp WwTW	EDM Level Meter	Vega Vegamet 862 with C 22	Location	Storm Overflow
Event Duration Monitor	Date	19 August 2025			
Total Uncertainty	1.5 mm				

DUAL SIDED STORM WEIRS



Depth Readings	
134	134
134	134
134	134
134	134
134	134
VAR +1	1.00

Measured Temp.	0	°C
Instrument Temp.	0	°C
Error	**0.0**	mm
Datum Level	134	mm
Instrument Level	133	mm
Error	**1**	mm
Sensor height above spill	532	mm
Accuracy	0.09	%
Error	**0.48**	mm
Estimate of wave height	2	mm
Repeatability[#1]	**0.4**	mm

Total Uncertainty	**1.5 mm**

Sensor Height	680	mm
Base Level	2139	mm (Staff Reading)
Lowest Weir Level	1991	mm (Staff Reading)
Spill Height	148	mm

Analogue Output	0	mm - 4mA
	660	mm - 20mA
Storm Event Activated	148	mm - 7.59 mA
Event De-Activated	147	mm - 7.56 mA

Bracket Level	1455	Staff Reading
Bobbin	Black	(550 mm)
Datum Reference Height	**134**	mm

Compliance Check	
Uncertainty < ±5mm	OK
Logging Intervals <2min	OK
Sensor location upstream from weir	Not applicable
Sensor distance to weir	OK
Sensor securely mounted	OK
Sensor Height	OK
Sunshade Required	No
Sunshade Installed	No
Sensor in channel centre	OK

Notes: #1 Repeatability uses IS4359 14.5.1
Total Uncertainty uses Error items in 'bold'

All dimensions in mm, unless stated otherwise.