



Liverpool Bay CCS Project WP3 Package PFAS monitoring in surface water system

26th January 2026

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Site context & Water systems

- Former gas terminal with legacy PFAS baseline
- Open surface water system (outfall basin, fire water pond, French drains, oil interceptor)
- Permitted discharge point to Talacre Brook
- Current routine discharge ceased



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Summary of PFOS Surface Water results

Location	PFOS Results 01/08/24 ERM	PFOS Results 01/07/25 - 30/08/25 Stuart Wells	PFOS Results 12/01/26 Saipem	Volume of Water impacted
Inlet/Outfall Basin (A1)	1.7 µg/L			unknown
Talacre Brook Upgradient	1.75 µg/L			unknown
Talacre Brook Downgradient	1.88 µg/L			unknown
Talacre Brook East	2.06 µg/L			unknown
Inlet/Outfall Basin W1 (B1)			5.2 µg/L	4000m3
Inlet/Outfall Basin W2 (B2)			5.1 µg/L	4000m3
Stilling Well 1 (SW1)		1.5 µg/L		unknown
Stilling Well 1 (SW1)		1.7 µg/L		unknown
Stilling Well 1 (SW1)		2.1 µg/L		unknown
Firewater Pond FW1			0.110 - 0.112	4500m3



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PFOS results Summary

What we know

- PFOS historically identified across site groundwater and surface water
- January 2026 sampling identified elevated PFOS in:
 - Outfall basin: up to 5.2 µg/L
- Results are consistent with known baseline contamination, but:
 - Represent an active surface water pathway
 - Require immediate risk control

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Immediate Actions Taken

What has already been done:

- Routine surface water discharge stopped on 12.01.26
- All surface water now retained on site
- Enhanced PFOS sampling initiated
- Treatment contractor mobilised and proposal developed

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Treatment Strategy Overview

Proposed phased treatment approach

- Modular Granular Activated Carbon (GAC) system
- Treats water within the site boundary
- Scalable and adjustable based on performance data
- Aligns with ERM DQRA and risk-based discharge objectives

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Phase 1 - Pilot GAC Treatment Trial (proposed methodology)

Objective

To trial and validate PFOS treatment performance prior to sustained operation or discharge.

Process Overview

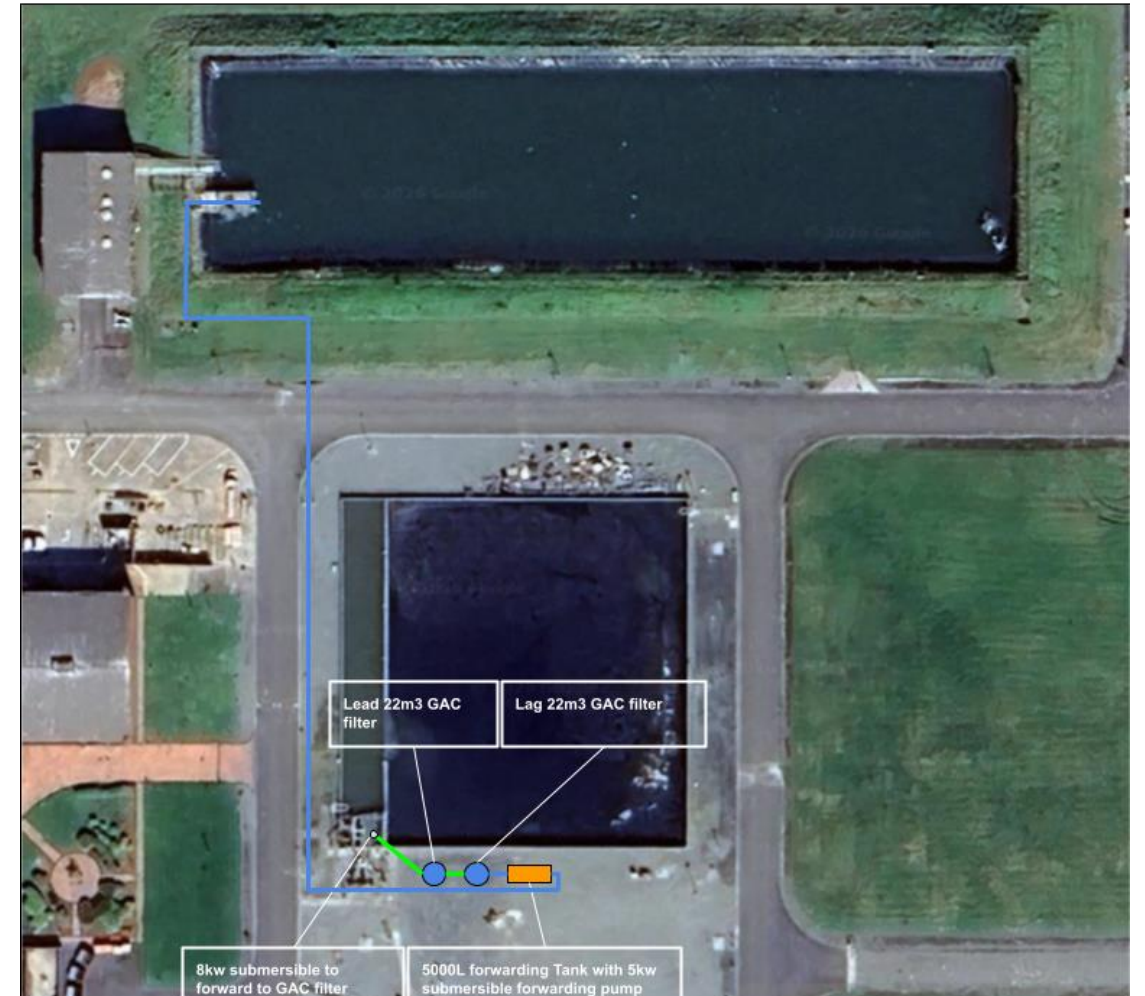
- Surface water drawn from the Outfall Basin inlet chamber
- Treated through two 22 m³ GAC vessels in lead-lag configuration
- Treated water discharged to a 5,000 L forwarding tank
- Booster pump transfers treated water to the Fire Water Pond for temporary storage (subject to approval and prior to discharge to Talacre Brook)

Monitoring & Verification

- Regular sampling at:
 - GAC inlet (pre-treatment)
 - Post-lead GAC (intermediate performance check)
 - Post Lag GAC (post-treatment)
- Samples analysed by an accredited laboratory

Outcomes of Phase 1

- Demonstrate treatment effectiveness against agreed PFOS discharge criteria
- Provide regulator confidence in the proposed solution
- Establish carbon lifespan and change-out frequency to inform system optimisation and scaling



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Phase 1: Fire Water Pond: Request for NRW Agreement

Specific regulatory ask

- Fire Water Pond PFOS results: 0.110-0.120 µg/L
- Lower concentration than outfall basin and within target discharge limit.
- Proposal:
 - Controlled emptying to Talacre Brook under agreed conditions and monitoring
- Provides:
 - Additional on-site attenuation
 - Allow the implementation of Phase 1 GAC Treatment of surface water system