From:	[redacted]
To:	Hampshire Water Project
Subject:	HWTWRP- Water Environment Hearing – EA EIR Response/guidance on monitoring expectations & CIP4 data
Date:	02 November 2026 22:22:28
Attachments:	EA Guidance on sampling & CIP4 data_EIR response_ EIR202644266.pdf EA_Pre-app guidance on monitoring expectations - FINAL.pdf CIP4 priority substances - sample - data - Budds Farm WwTW.xlsx

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HWTWRP - WA010002 – Examination Process – Water Environment Hearing – EA EIR Response Information

Dear sir/ madam,

When speaking at the Water Environment Hearing on 12 November members of the community may make reference to information recently provided by the EA in response to an Environmental Information Request (EIR) reference EIR2026/44266, provided on 19/10/26. This includes the attached.

- CIP4 priority substances – sample data – Budds Farm WwTW
- Pre application guidance for RAPID water recycling schemes – investigating and evidencing what is likely to be in new proposed discharges

The data is complex and we do not anticipate asking for it to be displayed at the hearing, but as more than one speaker from the community may refer to it, we felt that it was important to provide it as background information.

Yours sincerely,

[redacted]

On behalf of Water Matters and other community representatives

PINS registration identification number is: [redacted]

Environment Agency

For homes and habitats

[redacted]

Our ref: EIR2026/44266

[redacted]

Date: 19 October 2026

Dear [redacted],

RE: Environmental Information Regulations: EIR2026/44266

Thank you for your request for information regarding Southern Water related on testing and sampling related to effluent recycling, which we received on 15 September 2026.

We respond to requests for information that we hold under the Environmental Information Regulations 2004 (EIR). The Regulations requires that we respond to requests by advising you whether information is held or not, and if so by providing you with that information.

Information provided

1. What sampling has been agreed? The record of what the Environment Agency has agreed with Southern Water for such sampling at Budds Farm — whether a sampling plan, an exchange of correspondence, or meeting notes — showing the sampling points, the frequency, the substances, and the period it covers.

Through the pre-application process, no specific sampling regime is agreed. Advice was supplied to Southern Water on what evidence would be required to support a permit application. This is captured in the guidance stated and provided in response to point 2.

2. The EA guidance cited at the end of Chapter 19 as reference [80]: "Pre-application guidance for RAPID water recycling schemes – investigating and evidencing what is likely to be in new proposed discharges" (Environment Agency, 2025), and any later version of it.

Please find attached.

Environment Agency

For homes and habitats

3. Any results of that sampling that Southern Water has reported to the Environment Agency to date, as individual results (sampling date, time of day, sampling point, parameter, result and units, limit of detection, and results below the limit of detection) rather than summary statistics.
The sample results of the substances reference in your request are provided in the attached spreadsheet *"CIP4 priority substances – sample data – Budds Farm WwTW"*

4. Any results from Southern Water's water recycling pilot plant (operated at Budds Farm Wastewater Treatment Works and previously at Peel Common Wastewater Treatment Works) that Southern Water has supplied to the Environment Agency, in the form in which they were supplied.
Within the pre-application process SWS have submitted summary statistics from the pilot plant sampling, but we do not hold the raw sample data. This has been provided in the attached spreadsheet *"Summary statistics - Budds Pilot UVAOP effluent" – note for SSD:*

Please note: Southern Water Services (SWS) has not yet annotated all known data issues within the dataset. These will be identified and addressed through a comprehensive quality assurance process. Any amendments, corrections or updates resulting from that process will be fully documented, justified and traceable within the final dataset.

Please refer to the Open Government Licence which explains the permitted use of this information.

Rights of appeal
If you are not satisfied with our decision, you can contact us within two calendar months to ask for the decision to be reviewed. We will then conduct an internal review of our response to your request and give you our decision in writing within 40 working days.

To contact us, please reply directly to this email and quote the Case reference for this request - EIR2026/44266.

For homes and habitats

If you are not satisfied with the outcome of the internal review, you can then make an appeal to the Information Commissioner Office, the statutory regulator for the Environmental Information Regulations 2004 and the Freedom of Information Act 2000. Please follow this link to the ICO online complaints portal. The address is: Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire. SK9 5AF.

Tel: 0303 123 1113 (local rate) or 01625 545 745 (national rate) | Fax: 01625 524 510 Email: icocasework@ico.org.uk | Website: www.ico.org.uk

Yours sincerely,

[redacted]
SSD Area Customers and Engagement Team

Please tell us how we did
To help improve your experience as a customer we are currently gathering feedback. If you would like to take part in a short customer satisfaction survey, please click the link below:
Environment Agency FOI Customer Satisfaction Survey

Pre-application guidance for RAPID water recycling schemes – investigating and evidencing what is likely to be in new proposed discharges

Introduction

Environment Agency guidance[1] [2] states that applicants must evaluate and assess any pollutants that are likely to be in a proposed water discharge activity to surface water. Pollutants are likely to be in a discharge if:

- they're authorised to be discharged to the sewer network (for example water company trade effluent consent or discharges from installations),
- they're purposely added to the effluent stream as part of the treatment process (for example iron or aluminium to remove phosphorus) – read the guidance on dosed substances for the rules on this,
- they're detected within the discharge (for example analytical data derived from effluent samples).

Identification of pollutants likely to be in a discharge is straightforward for defined processes such as from industrial installations, as the inputs into that discharge are well known and controlled. It becomes more complex when a discharge is the result of a collection of waste streams from a large domestic and industrial catchment, as is the case for many water industry discharges from Wastewater Treatment Works (WwTW). This is the case for the water recycling schemes proposed under the Regulators Alliance for Progressing Infrastructure Development (RAPID) programme.

There are currently around 250,000 chemicals in use across all economic sectors. Many of those sector's discharge into sewer networks, or the products they produce are used widely within domestic and industrial applications resulting in them entering sewer networks. It is unfeasible to obtain monitoring data on each of these to ascertain presence. Non-Target Screening (NTS) is a technique that could provide a mechanism for determining presence of a wide spectrum of substances. These analytical methods are being trialled within the Chemicals Investigation Programme (CIP) 4. Once established these methods will be able to provide evidence to support evaluations of what pollutants are likely to be present in a discharge.

For schemes being developed within the RAPID programme that will progress prior to the completion of CIP4, a more defined monitoring process to conclude the presence of substances and those which meet the criteria for risk assessment is required.

This document sets out our approach in determining a risk-based set of monitoring expectations. These expectations are inline with the approach to hazardous substances including substances of emerging concern for water recycling strategic resource options as set out in the 8th September 2025 letter from the Director of Water to the All Company Working Group.

[1] Surface water pollution risk assessment for your environmental permit - GOV.UK
[2] 1076_14 H1 Annex D2 - Assessment of sanitary and other pollutants within Surface Water Discharges

Substances with standards set out in legislation

This includes substances in the Environmental Quality Standards Directive (EQSD) (2008/105/EC, as amended by 2013/39/EU) and for those substances (specific pollutants) covered by Annex 8 of the Water Framework Directive (WFD) (2000/60/EC). The standards for these substances were transposed into UK legislation through the "The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015" (also referred to as the 2015 Directions). As well as where operational EQSs have been formally agreed.

Due to their statutory status, it is expected that adequate monitoring data will be collected to inform the concentrations expected to be in the proposed discharges. Unless adequate evidence is provided to demonstrate that certain substances are not likely to be present (see supporting evidence sections).

Substances authorised to be discharged to the sewer network

These will originate from two main sources, domestic effluent and trade effluent.

Domestic effluent

Domestic discharges to the sewer network can contain a wide range of pollutants, from sanitary determinants to household products and pharmaceuticals. Determining everything that may have entered the sewer network from domestic inputs is complex, but the collaborative (Environment Agency and Water Industry) CIP and the Environment Agency's Priority and Early Warning System (PEWS) provide evidence of the likely contaminants in various catchment types and those contaminants which are currently presenting the most environmental concern.

CIP4 investigations aim to explore the impacts of emerging substances that have been identified by various sources, including PEWS and CIP3 via investigations undertaken by the water companies. In the development of CIP4, the technical working group, comprised of EA and water industry representatives, utilised analysis of CIP1, 2 & 3 and PEWS data to determine the top priority substances for England's surface waters. From this, 23 substances require further monitoring on long term trends to assess impacts on the environment. Within CIP4 these are being monitored within influent and effluent streams at WwTW. A further 93 substances require monitoring to better understand the presence and impacts on surface waters. Within CIP4 these are currently being monitored within influent, effluent and the receiving waterbody from WwTW across all water companies. Analytical methods for all these substances have been developed and validated by commercial laboratories in the UK. Furthermore, all water companies have successfully contracted this service as part of the CIP4 tender process.

6:2 Fluorotelomer Alcohol-Based Sulfonamide (6:2 FTAB) is a type of per- and polyfluoroalkyl substance (PFAS) primarily used in aqueous film-forming foams (AFFFs) for firefighting and is part of a broader group of fluorotelomer-based surfactants that replaced older PFAS such as perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) due to regulatory restrictions. It acts as a precursor to several commonly detected PFAS, which are frequently found in groundwater and surface water monitoring. As analytical techniques have advanced, 6:2 FTAB is being detected more often in the environment, prompting its inclusion in the Environment Agency's PFAS surveillance programme and its addition to the UK Drinking Water Inspectorate's monitoring list from January 2025. Given its widespread use and increasing environmental presence, 6:2 FTAB is now considered a priority PFAS for future investigations.

Ethinyl estradiol (EE2) is a synthetic oestrogen hormone with high potency and is included in the CIP4 endocrine disruption investigation. Its effects on the feminisation of fish in the environment at low concentrations are well understood and EE2 is being included here as a

priority substance as it is the most recalcitrant of the oestrogens of concern and can act as a proxy for others.

Therefore, from chemical investigations to date 113 parameters* have been identified as key sources of potential pollution from wastewater discharges with potential environmental risk to surface waters. Due to this prioritisation, all these substances will require adequate monitoring data in order to assess their risk (these are provided within Appendix 1). Unless adequate evidence is provided to demonstrate that certain substances are not likely to be present (see supporting evidence section).

Trade effluent

Trade discharges to the sewer network will be consented by the water company's trade effluent consent regime. Water companies should make efforts to evaluate if the detail held on trade effluent consents are representative of their current chemical composition. To support permit applications water companies will need to provide details of all the relevant trade effluent consents, including the following information:

- Trade effluent code name
- Main business
- Consent number
- Date of effect
- NGR point of entry
- Continuous/intermittent
- Nature and composition
- Permitted substances name and limit (ug/l)
- Volume (m3/d)
- Instantaneous flow rate (l/sec)

All additional substances listed on relevant consents will require adequate monitoring data to assess their risk.

Substances added for the purposes of treatment or introduced to the effluent stream at WwTWs

Chemicals that are dosed at WwTWs, for example, to aid phosphorus removal will typically be controlled through appropriate permit conditions. The Environment Agency chemical dosing guidance should be followed if these are present in a discharge.

Other substances may be introduced to discharges during routine maintenance and backwash operations, such as sodium hypochlorite.

Any substance that is likely to be present in a proposed discharge will require adequate monitoring data to assess its risk.

Remineralisation of effluent may be required following reverse osmosis treatment. This process reintroduces essential minerals to discharges to ensure there is no subsequent impact on receiving water chemistry. Details of proposed remineralisation activities and environmental risk assessment shall be provided with permit pre-application/formal application submissions.

Substances detected within the discharge

Permitting decisions must take in to account all available and relevant data. Any substances that have been detected within a discharge or effluent that will result in a discharge must be assessed as part of the permit determination.

*Some substances have multiple parameters (e.g. dissolved and total), some substances are duplicated between the two lists referenced plus the addition of 6:2 FTAB and EE2. NB some substances do also have statutory thresholds (e.g. EQS)

Therefore, any relevant analytical data representative of the chemical composition of the effluent to be discharged should be provided to support permit pre-application submissions and must be submitted within formal permit applications.

Supporting evidence

The recommendations above are to help ascertain what substance(s) are most likely to be present within the proposed discharges and therefore require monitoring data for risk assessment. However, every sewer catchment and WwTWs has its own unique characteristics. Therefore, although the recommendation above aims to set out defined monitoring requirements to support permit applications, water companies may wish to justify why a certain substance(s) does not require specific monitoring as they are not expected to be present.

Evidence to support the determination of the absence of an otherwise expected substance may take the form of semi-quantitative or NTS. Alternatively, a desk-based review of the sewer catchment to consider what industries are present and therefore discharging into the sewer network may also be used to justify the exclusion of substances for further monitoring. This could provide qualitative evidence to justify that certain substances are not expected to be present as they are known to originate from certain industries that are not present within the sewer network collection catchment.

Summary

The Environment Agency advises water companies to conduct appropriate monitoring of substances likely to be present in the proposed discharge from water recycling schemes in line with the recommendation within this document. This may include specific analytical data, semi-quantitative or NTS, or sewer catchment and trade effluent consent reviews to evidence certain substances that are not likely to be present.

It is advised that this data and evidence is submitted to the Environment Agency via pre-application processes to aid development of suitable permit application submissions.

This evidence will provide the foundations for the risk assessments that are required to support a permit application for the proposed discharge activity. Without a complete risk assessment, any permit determination will be open to challenge.

When sourcing and providing monitoring data to support pre-application and permit applications, it should always be done in line with relevant guidance (for hazardous substances this is: LIT13134 - Permitting of hazardous pollutants in discharges to surface waters – 20-06-2025).

Appendix 1

Chemical name	CAS number	Effluent LOD (ug/l)	River Water LOD (ug/l)
1,1,1-Tris(4-hydroxyphenyl)ethane (THPE)	27955-94-8	0.1	0.1
12:2 Fluorotelomer phosphate diester (10:2 diPAP)	1158182-61-6	No defined LOD	No defined LOD
2-(N-Ethylperfluorooctanesulfonamido) acetic acid	2991-50-6	0.001	No defined LOD
2,2',6,6'-Tetra-tert-butyl-4,4'-methylenediphenol	118-82-1	0.0001	0.0001
2,2-Bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	0.057	0.057
2,2-Bis(4-hydroxyphenyl)butane (Bisphenol B (BPB))	77-40-7	0.135	0.135
2,2'-Diallyl-4,4'-sulfonyldiphenol (TG-SA)	41481-66-7	0.111	0.111
3-BC	15087-24-8	0.019	0.019
4,4’-Dihydroxy-α-methylstilbene	13057-72-2	No defined LOD	No defined LOD
4,4′-(3,3,5-Trimethylcyclohexylidene)bisphenol (bisphenol TMC)	129188-99-4	0.021	0.021
4,4′-Isopropylidenebis(2,6-dimethylphenol) (TMBPA)	5613-46-7	0.057	0.057
4,4'-Cyclohexylidenedi-o-cresol	2362-14-3	0.042	0.042
4,4'-Dihydroxybenzophenone	611-99-4	0.656	0.656

Chemical name	CAS number	Effluent LOD (ug/l)	River Water LOD (ug/l)
4,4'-Methylenedi-2,6-xylenol	5384-21-4	0.072	0.072
4-MBC	36861-47-9	0.01	0.01
6,6'-Di-tert-butyl-4,4'-butylidenedi-m-cresol	85-60-9	0.0037	0.0037
6:2 Fluorotelomer phosphate diester (6:2 diPAP)	57677-95-9	No defined LOD	No defined LOD
6:2 Fluorotelomer sulfonic acid (6:2 FTSA; 6:2 FTS)	27619-97-2	0.001	No defined LOD
6-PPD Quinone	2754428-18-5	0.0045	0.0045
8:2 Fluorotelomer phosphate diester (8:2 diPAP)	678-41-1	0.001	No defined LOD
Acetyl tributyl citrate	77-90-7	0.01	0.01
Avobenzone	70356-09-1	0.012	0.012
BDE 100	189084-64-8	0.0001	No defined LOD
BDE 153	68631-49-2	0.0001	No defined LOD
BDE 154	207122-15-4	0.0001	No defined LOD
BDE 28	41318-75-6	0.0001	No defined LOD
BDE 47	5436-43-1	0.0001	No defined LOD

Chemical name	CAS number	Effluent LOD (ug/l)	River Water LOD (ug/l)
BDE 99	60348-60-9	0.0001	No defined LOD
Benzenesulfonamide, N-butyl	3622-84-2	0.2	0.2
Benzo(a)pyrene	50-32-8	0.00017	No defined LOD
Benzyl butyl phthalate (BBP)	85-68-7	0.52	0.52
Bezafibrate	41859-67-0	0.005	0.005
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	0.1	0.1
Bisphenol A (4,4’-Isopropylidenediphenol)	80-05-7	0.01	0.01
BuP (butyl paraben)	94-26-8	0.19	0.19
Cadmium (dissolved)	N/A	0.02	No defined LOD
Cadmium (total)	7440-43-9	0.02	No defined LOD
Camphor	76-22-2	0.171	0.171
Cetirizine	83881-51-0	0.1	0.1
Chlorodibromomethane	124-48-1	0.01	0.01
Clopidol	2971-90-6	0.001	0.001

Chemical name	CAS number	Effluent LOD (ug/l)	River Water LOD (ug/l)
Cocaine	50-36-2	0.001	0.001
Decabromodiphenyl ethane (DBDPE)	84852-53-9	0.0005	0.0005
Deltamethrin	52918-63-5	0.001	0.001
Dibutyl phthalate (DnBP)	84-74-2	1	1
Dicyclohexyl phthalate (DCHP)	84-61-7	0.1	0.1
Di-ethyl phthalate (DEP)	84-66-2	1.2	1.2
Dihexyl phthalate (DHP)	84-75-3	0.01	0.01
Di-isobutyl phthalate (DIBP)	84-69-5	0.5	0.5
Dimethyl phthalate (DMP)	131-11-3	2.6	2.6
Diphenhydramine	58-73-1	0.01	0.01
Erythromycin	114-07-8	0.5	0.005
EtP (ethyl paraben)	120-47-8	0.74	0.74
Fipronil (FPNL)	120068-37-3	0.01	0.00068
Fluoranthene	206-44-0	0.0009	No defined LOD

Chemical name	CAS number	Effluent LOD (ug/l)	River Water LOD (ug/l)
Fluoxetine	54920-89-3	0.005	0.005
Hexabromo-cyclododecane	25637-99-4	0.00046	No defined LOD
IB cyclohexanol	3407-42-9	No defined LOD	No defined LOD
Ibuprofen	15687-27-1	0.22	0.022
IC cyclohexanol	108-93-0	No defined LOD	No defined LOD
Imidacloprid (IMIDA)	138261-41-3	0.0068	0.0068
Lead (dissolved)	N/A	0.1	No defined LOD
Lead (total)	7439-92-1	0.1	No defined LOD
Lidocaine (Diocaine)	137-58-6	6	6
MeP (methyl paraben)	99-76-3	0.24	0.24
Mercury (dissolved)	N/A	0.001	No defined LOD
Mercury (total)	7439-97-6	0.001	No defined LOD
Metformin	657-24-9	0.2	0.2
Octocrylene	6197-30-4	0.01	0.01

Chemical name	CAS number	Effluent LOD (ug/l)	River Water LOD (ug/l)
Oxybenzone (benzophenone-3)	131-57-7	0.01	0.01
Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.001	0.001
Perfluorobutanoic acid (PFBA)	375-22-4	0.08	0.08
Perfluorodecanesulfonic acid (PFDS)	335-77-3	0.02	0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	0.02
Perfluorododecanoic acid (PFDoDA, PFDoA)	307-55-1	0.02	0.02
Perfluoroheptanesulfonic acid (PFHpS)	375-92-8	0.02	0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.001	0.001
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	0.001	0.001
Perfluorohexanoic acid (PFHxA)	307-24-4	0.001	0.001
Perfluorononanesulfonic acid (PFNS)	68259-12-1	0.02	0.02
Perfluorononanoic acid (PFNA)	375-95-1	0.02	0.02
Perfluorooctanesulfonamide (PFOSA, FOSA)	754-91-6	0.001	No defined LOD
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.00065	0.00009

Chemical name	CAS number	Effluent LOD (ug/l)	River Water LOD (ug/l)
Perfluorooctanoic acid (PFOA)	335-67-1	0.00065	0.00065
Perfluoropentanesulfonic acid (PFPeS)	2706-91-4	0.02	0.02
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.001	0.001
Perfluoroundecane sulfonic acid (PFUnDS)	749786-16-1	0.016	0.016
Perfluoroundecanoic acid (PFUnDA, PFUnA; PFUdA)	2058-94-8	0.02	0.02
Permethrin	52645-53-1	0.001	0.001
Phenolphthalein	77-09-8	0.025	0.025
PrP (propyl paraben)	94-13-3	0.5	0.5
Ranitidine	66357-35-5	0.3	0.3
TBBPA	79-94-7	0.0064	0.0064
TBBPA-DBPE	21850-44-2	0.0064	0.0064
TDCP (Tris (1,3-dichloroisopropyl) phosphate)	13674-87-8	0.5	0.02
Telmisartan	144701-48-4	0.001	0.001
Tetrachlorobisphenol A	79-95-8	0.0056	0.0056

Chemical name	CAS number	Effluent LOD (ug/l)	River Water LOD (ug/l)
Tetrachloroethylene	127-18-4	0.01	0.01
Tramadol	27203-92-5	0.5	0.5
Tributyltin	36643-28-4	0.00006	No defined LOD
Triclosan	3380-34-5	0.01	No defined LOD
Trixylyl phosphate	25155-23-1	0.01	0.01
UV-234	70321-86-7	8.6E-05	0.000086
UV-320	3846-71-7	0.0014	0.0014
UV-326	3896-11-5	0.0013	0.0013
UV-327	3864-99-1	0.00067	0.00067
UV-328	25973-55-1	0.00059	0.00059
UV-329	3147-75-9	0.0012	0.0012
UV-350	36437-37-3	0.0013	0.0013
UV-360	103597-45-1	0.001	0.001
UV-928	73936-91-1	0.00014	0.00014

Chemical name	CAS number	Effluent LOD (ug/l)	River Water LOD (ug/l)
6:2 Fluorotelomer Alcohol-Based Sulfonamide (6:2 FTAB)	34455-29-3	0.002	0.002
Ethinyl Estradiol (EE2)	57-63-6	0.00003	0.00003