



PFAS Testing in Jersey: Testing & Results Summary V2.0

04/02/2026

INTRODUCTION

This paper sets out the PFAS testing work commissioned and undertaken by the Government of Jersey to inform Report Four by the Independent PFAS Scientific Advisory Panel (the Panel).

The paper presents the main testing streams that contributed to the Panel's assessment and records the evidence base that will inform the Panel's report.

The paper details the testing undertaken under the [PFAS Testing Protocol](#) and related monitoring work. It presents PFAS levels in food, soils (including fields with and without biosolids application), biosolids and Sewage Treatment Works (STW) operations, private water supplies (primarily boreholes), and testing undertaken in connection with planning applications. The data includes both newly commissioned sampling and existing datasets where these meet the same quality standards.

The purpose of the paper is to provide the Panel with a clear and transparent account of how data have been generated and assembled, including the main limitations. Interpretation of the findings, including health or regulatory conclusions, will be undertaken by the Panel and is not undertaken in this paper.

1. TESTING METHODOLOGY

The testing described in this paper has been undertaken according to the Government of Jersey's PFAS Testing Protocol and associated sampling procedures, including the published [Testing Methodology](#). This sets out how samples were selected, collected, stored and transported, and how laboratories were commissioned. Accredited laboratories with experience in ultra-trace PFAS analysis were used, and standard quality assurance measures were applied, including field and laboratory blanks, duplicate samples. This included documented chain-of-custody from collection through to reporting.

For each sample, laboratories measured a defined set of PFAS compounds using analytical methods with very low detection limits. Results are reported as measured concentrations for individual compounds and, where relevant, as the sum of selected PFAS'.

In this paper, 'not detectable' (ND) or 'less than reporting limit' (<RL) are used to indicate where the concentration of a PFAS compound in a sample is below the laboratory's reporting detection limit for that test. 'Not detectable' or 'less than reporting limit' does not mean that the compound is completely absent, but rather that it is at a level too low to be accurately measured by the analytical method used. Different labs were used depending on the category of the items being sampled, above each of the results tables will indicate which lab was used and what the reporting detection limit is for those specific samples.

When testing adheres to the same quality standards, new sampling results have been combined with historic datasets. This allows the Panel to compare findings and place Jersey's results within a broader body of evidence.

2. PFAS LEVELS IN FOOD

Per- and polyfluoroalkyl substances (PFAS) are persistent pollutants that are known to accumulate in both the environment and the food chain. The European Food Safety Authority (EFSA) identified certain foods as the main sources of dietary exposure, leading to targeted monitoring and the addition of PFAS to existing EU food contaminants regulations.

According to EFSA, the primary dietary sources of PFAS exposure are foods of animal origin, including seafood, meat, eggs, and dairy. Given these established exposure risks, a selected range of such products from both Jersey and the UK were sampled for comparison, recognising that the majority of foods consumed in Jersey are imported from the UK.

We also selected a range of seasonal fruits and vegetables for testing. PFAS can be present in soil, water, and certain fertilisers, and may therefore be absorbed into crops as they grow. Although concentrations are generally much lower than those found in foods of animal origin, monitoring these levels is important to provide a more comprehensive picture of dietary exposure.

The results from the sampling across the island are presented in Table 1. In total, 43 Products of Animal Origin (POAO) and 33 samples of fruit and vegetables were tested. These totals include retested samples.

Of the 33 fruit and vegetable samples, 22 returned PFAS results that were 'not detected'. Of the 11 that returned results above the 'not detected' level, nine samples were potatoes, with results ranging from 0.00122 to 0.02580µg/kg. All the results for fruit and vegetables were below the EU's indicative level of 0.04µg/kg. Of the remaining fruit and vegetable samples, only locally grown bell peppers and tomatoes returned a result of just above detectable levels of 0.00122 and 0.00751µg/kg respectively, both well below the EU's indicative level of 0.04µg/kg.

Of the 43 products of animal origin (POAO) samples tested, 27 results all returned levels that were well below the EU maximum concentrations. Two samples exceeded the EU limit, one of these was a Jersey pork liver sample and the other being a UK (not Jersey sourced) brown crab meat product. It is not clear whether the elevated samples accurately represent this food type, therefore resampling of a new sample was undertaken. This is normal practice when results are higher than anticipated. The UK crab meat resample resulted in a figure of 1.93µg/kg which is less than half the EU maximum of 5.00µg/kg. The pork liver re-sample resulted in a figure of 25.36µg/kg, higher than the previous figure. Upon notification of these results, the producer voluntarily removed this product from the market.

The levels of PFAS in sampled eggs were all well below the EU maximum of 1.7µg/kg. However, the eggs from all Jersey producers were retested at the retail and production level to provide a more complete picture. This second round of tests returned results that were either below reporting limit or much lower than the first set of results.

Milk has not had a maximum PFAS limit set by the EU. Jersey 'raw' milk returned a level of below the reporting limit (RL) with the Jersey 'whole milk' sample returning a result of 0.162 µg/kg. Since raw was a precursor to whole it was not considered of concern, however a retest was done for completeness and sampling rigour, which returned a level below reporting limit.

The UK milk sample (not Jersey sourced) returned results of 0.162 and 0.108µg/kg respectively.

Resampling using further Jersey milk samples was undertaken to verify and better understand these data. This is the usual practice when results are higher than expected. Four samples of Jersey milk were resampled. These were Raw milk (from silo), 1% fat milk (retail carton), 2.5% fat milk (retail carton), Whole milk (retail carton). All the resampled data resulted in levels below the reporting limit.

Table 1. PFAS levels in Food products from across the island.

The below food category samples were sent to [PASS](#); this lab's detection limit for each of the 4 PFAS are shown in the table heading. This laboratory has a possible +/- variance or margin for error for any sample with a result above detection limits. This detail was not provided in the table below, because it was less than 0.01µg/kg, but can be provided upon request.

Food Category	Product / Description	Source	Notes	PFHxS (µg/kg) (ND = <0.00400)	PFOA (µg/kg) (ND = <0.00100)	PFNA (µg/kg) (ND = <0.00100)	PFOS (µg/kg) (ND = <0.00200)	Sum of Four PFAS (µg/kg)	EU indicative levels (EU) 2022/1431	EU Maximum (EU) 2023/915
Seasonal Fruit/Veg	Potatoes	Jersey	Early season Jersey Royals	ND	ND	ND	ND	ND	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	UK	Early season new potatoes	ND	ND	ND	ND	ND	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	UK	Early season new potatoes	ND	ND	ND	ND	ND	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	UK	Main crop	ND	ND	ND	ND	ND	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	Jersey	Early season Jersey Royals	ND	0.00269	ND	0.00713	0.00981	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	Jersey	Early season Jersey Royals	ND	0.00228	ND	0.00523	0.00751	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	Jersey	Early season Jersey Royals	ND	ND	ND	ND	ND	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	Jersey	Early season Jersey Royals	ND	ND	ND	ND	ND	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	Jersey	Early season Jersey Royals	0.0122	0.00173		0.0118	0.0258	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	Jersey	Early season Jersey Royals		0.00332		0.00532	0.00864	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	Jersey	Early season Jersey Royals	ND	ND	ND	ND	ND	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	Jersey	Early season Jersey Royals	ND	ND	ND	ND	ND	0.04	no limit established

Food Category	Product / Description	Source	Notes	PFHxS (µg/kg) (ND = <0.00400)	PFOA (µg/kg) (ND = <0.00100)	PFNA (µg/kg) (ND = <0.00100)	PFOS (µg/kg) (ND = <0.00200)	Sum of Four PFAS (µg/kg)	EU indicative levels (EU) 2022/1431	EU Maximum (EU) 2023/915
Seasonal Fruit/Veg	Potatoes	Jersey	Early season Jersey Royals	ND	0.00219	ND	0.0068	0.00899	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	Jersey	Early season Jersey Royals	ND	0.00578	0.00157	0.012	0.0194	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	Jersey	Early season Jersey Royals	ND	0.00231	0.00135	0.0103	0.014	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	Jersey	Main crop	ND	ND	ND	ND	ND	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	Jersey	Main crop	ND	0.00221	ND	ND	0.00221	0.04	no limit established
Seasonal Fruit/Veg	Potatoes	UK	Main crop	ND	0.00175	ND	ND	0.00175	0.04	no limit established

The below food category samples were sent to [PASS](#), this lab's detection limit for each of the 4 PFAS are shown in the table heading. This laboratory has a possible +/- variance or margin for error for any sample with a result above detection limits. This detail was not provided in the table below, because it was less than 0.01µg/kg, but can be provided upon request.

Food Category	Product / Description	Source	Notes	PFHxS (µg/kg) (ND = <0.00400)	PFOA (µg/kg) (ND = <0.00100)	PFNA (µg/kg) (ND = <0.00100)	PFOS (µg/kg) (ND = <0.00200)	Sum of Four PFAS (µg/kg)	EU indicative levels (EU) 2022/1431	EU Maximum (EU) 2023/915
Seasonal Fruit/Veg	Bell Peppers	Jersey		ND	0.00120	ND	ND	0.00122	no indicative level established	no limit established
Seasonal Fruit/Veg	Tomatoes	Jersey		ND	0.00750	ND	ND	0.00751	no indicative level established	no limit established
Seasonal Fruit/Veg	Tomatoes	Jersey		ND	ND	ND	ND	ND	no indicative level established	no limit established
Seasonal Fruit/Veg	Bell Peppers	UK / NL		ND	ND	ND	ND	ND	no indicative level established	no limit established
Seasonal Fruit/Veg	Tomatoes	UK		ND	ND	ND	ND	ND	no indicative level established	no limit established
Seasonal Fruit/Veg	Courgettes	UK		ND	ND	ND	ND	ND	no indicative level established	no limit established

Food Category	Product / Description	Source	Notes	PFHxS (µg/kg) (ND = <0.00400)	PFOA (µg/kg) (ND = <0.00100)	PFNA (µg/kg) (ND = <0.00100)	PFOS (µg/kg) (ND = <0.00200)	Sum of Four PFAS (µg/kg)	EU indicative levels (EU) 2022/1431	EU Maximum (EU) 2023/915
Seasonal Fruit/Veg	Courgettes	Jersey		ND	ND	ND	ND	ND	no indicative level established	no limit established
Seasonal Fruit/Veg	Cabbage	Jersey		ND	ND	ND	ND	ND	no indicative level established	no limit established
Seasonal Fruit/Veg	Cauliflower	Jersey		ND	ND	ND	ND	ND	no indicative level established	no limit established
Seasonal Fruit/Veg	Cabbage	UK		ND	ND	ND	ND	ND	no indicative level established	no limit established
Seasonal Fruit/Veg	Cauliflower	UK		ND	ND	ND	ND	ND	no indicative level established	no limit established
Seasonal Fruit/Veg	Strawberries	Jersey		ND	ND	ND	ND	ND	no indicative level established	no limit established
Seasonal Fruit/Veg	Strawberries	UK		ND	ND	ND	ND	ND	no indicative level established	no limit established
Seasonal Fruit/Veg	Asparagus	Jersey		ND	ND	ND	ND	ND	no indicative level established	no limit established
Seasonal Fruit/Veg	Asparagus	UK		ND	ND	ND	ND	ND	no indicative level established	no limit established

The below food category samples were sent to [FERA](#), this lab's reporting limit for each of the 4 PFAS are shown in the table heading.

Food Category	Product / Description	Source	Notes	PFHxS (µg/kg) (RL=0.020)	PFOA (µg/kg) (RL=0.025)	PFNA (µg/kg) (RL=0.016)	PFOS (µg/kg) (RL=0.018)	Sum of Four PFAS (µg/kg)	EU indicative levels (EU) 2022/1431	EU Maximum (EU) 2023/915
POAO	Eggs	Jersey	Free range	<RL	0.154	0.027	0.602	0.783	no indicative level established	1.7
POAO	Eggs	Jersey	Free range	<RL	0.11	0.03	0.179	0.319	no indicative level established	1.7
POAO	Eggs	Jersey	Free range	<RL	0.119	0.02	<RL	0.14	no indicative	1.7

Food Category	Product / Description	Source	Notes	PFHxS (µg/kg) (RL=0.020)	PFOA (µg/kg) (RL=0.025)	PFNA (µg/kg) (RL=0.016)	PFOS (µg/kg) (RL=0.018)	Sum of Four PFAS (µg/kg)	EU indicative levels (EU) 2022/1431	EU Maximum (EU) 2023/915
									level established	
POAO	Eggs	UK	Free range	<RL	0.076	<RL	<RL	0.076	no indicative level established	1.7
POAO	Eggs	UK	Free range	<RL	0.084	0.017	<RL	0.101	no indicative level established	1.7
POAO	Eggs	Jersey	Free range, Direct from farm	<RL	<RL	<RL	0.08	0.08	no indicative level established	1.7
POAO	Eggs	Jersey	Free range, Retail	<RL	<RL	<RL	0.19	0.19	no indicative level established	1.7
POAO	Eggs	Jersey	Free range, Retail	<RL	<RL	<RL	<RL	0.00	no indicative level established	1.7
POAO	Eggs	Jersey	Free range, Direct from farm	<RL	<RL	<RL	<RL	0.00	no indicative level established	1.7
POAO	Eggs	Jersey	Free range, Retail	<RL	<RL	<RL	0.05	0.05	no indicative level established	1.7
POAO	Eggs	Jersey	Free range, Direct from farm	<RL	<RL	<RL	<RL	0.00	no indicative level established	1.7

The below food category samples were sent to [FERA](#), this lab's reporting limit for each of the 4 PFAS are shown in the table heading.

Food Category	Product / Description	Source	Notes	PFHxS (µg/kg) (RL=0.020)	PFOA (µg/kg) (RL=0.025)	PFNA (µg/kg) (RL=0.016)	PFOS (µg/kg) (RL=0.018)	Sum of Four PFAS (µg/kg)	EU indicative levels (EU) 2022/1431	EU Maximum (EU) 2023/915
POAO	Milk	Jersey	Fresh, whole	<RL	0.139	0.022	<RL	0.162	0.14	no limit established
POAO	Milk	UK	Fresh	<RL	0.091	0.017	<RL	0.108	0.14	no limit established
POAO	Milk	Jersey	Raw	<RL	<RL	<RL	<RL	<RL	0.14	no limit established
POAO	Milk	Jersey	Raw	<RL	<RL	<RL	<RL	<RL	0.14	no limit established

Food Category	Product / Description	Source	Notes	PFHxS (µg/kg) (RL=0.020)	PFOA (µg/kg) (RL=0.025)	PFNA (µg/kg) (RL=0.016)	PFOS (µg/kg) (RL=0.018)	Sum of Four PFAS (µg/kg)	EU indicative levels (EU) 2022/1431	EU Maximum (EU) 2023/915
POAO	Milk	Jersey	1.0%	<RL	<RL	<RL	<RL	<RL	0.14	no limit established
POAO	Milk	Jersey	2.5%	<RL	<RL	<RL	<RL	<RL	0.14	no limit established
POAO	Milk	Jersey	Whole	<RL	<RL	<RL	<RL	<RL	0.14	no limit established

The below food category samples were sent to [FERA](#), this lab's reporting limit for each of the 4 PFAS are shown in the table heading.

Food Category	Product / Description	Source	Notes	PFHxS (µg/kg) (RL=0.020)	PFOA (µg/kg) (RL=0.025)	PFNA (µg/kg) (RL=0.016)	PFOS (µg/kg) (RL=0.018)	Sum of Four PFAS (µg/kg)	EU indicative levels (EU) 2022/1431	EU Maximum (EU) 2023/915
POAO	Beef	Jersey	Meat	<RL	<RL	<RL	0.032	0.032	no indicative level established	1.3
POAO	Beef	Jersey	Offal - Kidney	0.025	<RL	0.078	0.342	0.446	no indicative level established	8
POAO	Beef	Jersey	Offal - Liver	<RL	<RL	0.126	1.076	1.202	no indicative level established	8
POAO	Pork	Jersey	Meat	<RL	0.055	0.020	0.072	0.147	no indicative level established	1.3
POAO	Pork	Jersey	Offal - Kidney	0.027	0.054	0.074	0.642	0.797	no indicative level established	8
POAO	Pork	Jersey	Offal - Liver	0.176	0.806	1.788	19.974	22.744	no indicative level established	8
POAO	Beef	UK	Meat	<RL	<RL	<RL	<RL	<RL	no indicative level established	1.3
POAO	Beef	UK	Offal - Liver	<RL	<RL	0.061	0.684	0.745	no indicative level established	8
POAO	Beef	UK	Offal - Kidney	<RL	<RL	<RL	0.087	0.087	no indicative level established	8

Food Category	Product / Description	Source	Notes	PFHxS (µg/kg) (RL=0.020)	PFOA (µg/kg) (RL=0.025)	PFNA (µg/kg) (RL=0.016)	PFOS (µg/kg) (RL=0.018)	Sum of Four PFAS (µg/kg)	EU indicative levels (EU) 2022/1431	EU Maximum (EU) 2023/915
POAO	Pork	UK	Meat	<RL	<RL	<RL	<RL	<RL	no indicative level established	1.3
POAO	Pork	UK	Offal - Liver	<RL	<RL	<RL	0.072	0.072	no indicative level established	8
POAO	Pork	Jersey	Offal - Liver	0.23	0.50	0.630	24.010	25.350	no indicative level established	8

The below food category samples were sent to [FERA](#), this lab's reporting limit for each of the 4 PFAS are shown in the table heading.

Food Category	Product / Description	Source	Notes	PFHxS (µg/kg) (RL=0.020)	PFOA (µg/kg) (RL=0.025)	PFNA (µg/kg) (RL=0.016)	PFOS (µg/kg) (RL=0.018)	Sum of Four PFAS (µg/kg)	EU indicative levels (EU) 2022/1431	EU Maximum (EU) 2023/915
POAO	Oysters	Jersey	Aquaculture	<RL	0.75	<RL	<RL	0.075	no indicative level established	5
POAO	Oysters	UK	Aquaculture	<RL	0.99	<RL	<RL	0.099	no indicative level established	5
POAO	Crab	Jersey	Chancre, wild caught	<RL	0.124	0.098	0.141	0.363	no indicative level established	5
POAO	Crab	Jersey	Spider, wild caught	0.036	0.568	0.263	0.085	0.953	no indicative level established	5
POAO	Lobster	Jersey	Wild caught	<RL	0.097	0.032	0.082	0.211	no indicative level established	5
POAO	Scallops	Jersey	Wild caught	<RL	0.063	0.018	0.035	0.117	no indicative level established	5
POAO	Crab Meat	UK	Wild caught	<RL	2.674	1.399	1.356	5.429	no indicative level established	5
POAO	Black bream	Jersey	Fillet	<RL	0.076	0.016	<RL	0.092	no indicative level established	45

Food Category	Product / Description	Source	Notes	PFHxS (µg/kg) (RL=0.020)	PFOA (µg/kg) (RL=0.025)	PFNA (µg/kg) (RL=0.016)	PFOS (µg/kg) (RL=0.018)	Sum of Four PFAS (µg/kg)	EU indicative levels (EU) 2022/1431	EU Maximum (EU) 2023/915
POAO	Cod	UK	Fillet	<RL	0.080	0.088	0.075	0.243	no indicative level established	2
POAO	Bass	UK / EU	Farmed, fillet	<RL	0.085	<RL	0.023	0.108	no indicative level established	8
POAO	Crab Meat	UK	Wild caught	<RL	0.960	0.560	0.400	1.930	no indicative level established	5
POAO	Seabass	Jersey	Wild caught	<RL	<RL	<RL	0.66	0.66	no indicative level established	8
POAO	Mackerel	Jersey	Wild caught	<RL	<RL	<RL	0.64	0.64	no indicative level established	2

3. PFAS LEVELS IN SOIL

The principal aim of the soil sampling programme is to provide a representative set of test results giving a snapshot of the PFAS levels in the top layer of soil across Jersey. This will provide a better understanding of PFAS levels in soils under different management and exposure conditions. To achieve this, consideration was given to selecting locations across the Island to account for different soil types and environmental conditions. There is no current maximum PFAS concentration set by the EU for soil to compare the island's data to. However, comparison to similar studies elsewhere can be made.

Landowners are not always the operators of any given agricultural field. Lease holders, for example, can apply agricultural/soil enhancing products to land while they hold the lease. These can include soil enhancing products, such as biosolids cake (treated and dried sewage sludge from the sewage treatment works) or filter cake (treated strained waste from the water treatment works).

Tracking the historic use and application of soil enhancing product to fields can be intricate work due to the practice of land swapping where field users will swap fields for a short period of time, to allow rotation between potato and dairy farming without a change in ownership. Tracing the lease holder or landowner of a specific field can be complex as there is no land registry in Jersey and if land has not changed hands recently it will not feature in the land transactions database.

Areas were selected for testing to encompass a known range of historic product applications, from areas with no history of cultivation, to areas currently in use for cultivation. These were then subdivided into fields with no land applications of Biosolids Cake or Filter Cake products, to fields that have received one or both products, in varying amounts and frequencies.

Table 2 presents the results of the soil sampled from 53 fields, woodlands, valleys, and meadows across Jersey, 29 of the soil samples resulted in PFAS levels that were 'not detected'. The remaining 24 soil samples returned with PFAS levels higher than 'not detected', 13 of these were from the affected area around the airport (plume), with the remaining 11 samples of detected results coming from one valley and ten fields that have had a range of biosolids cake or filter cake applied in recent years.

Of the 13 samples of soil tested from fields within the affected area around the airport (plume) we can see that all of them resulted in PFAS levels above 'not detected'. Results of this nature were anticipated given the proximity to the airport fire training grounds and their location within the affected area around the airport. The levels of PFAS in the soil of these fields ranged from between 1.69 to 23 µg/kg. Perhaps unsurprisingly, the sample with the highest level of total PFAS (23 µg/kg) was a field closest to the fire training grounds which again one would expect to see. It is also worth noting that this sample was significantly higher than the next highest sample of 13.2 µg/kg. Again, illustrating the significance of proximity to the fire training grounds in returning elevated results and the subsequent reduction in PFAS concentrations the further away from the airport fire training grounds the samples were taken.

Detected levels of PFAS from filter cake application sites outside the affected area ranged between 1.47 and 5.31µg/kg, and between 1.04 and 5.21µg/kg for biosolid application sites outside of the affected area.

In summary, the results of the soil analysis received so far show no PFAS detected in the uncultivated 'control' areas, low PFAS levels in fields which have received applications of biosolids or filter cake, and higher PFAS levels within the demonstrated affected area around the airport (plume).

Table 2. PFAS levels in soil across the island

The below soil category samples were sent to [VERITAS](#), this lab's reporting limit for each of the 4 PFAS are shown in the table heading.

Land type	Location (parish)	Description	Notes	PFHxS (µg/kg) (ND = <1ug/kg)	PFNA (µg/kg) (ND = <1ug/kg)	PFOA (µg/kg) (ND = <1ug/kg)	PFOS (µg/kg) (ND = <1ug/kg)	Sum of Four PFAS (µg/kg)
Beauport, Control	St Brelade	Control field - no recent agriculture	No applications to land	ND	ND	ND	ND	ND
Woodland, Control	St Martin (St Catherines)	Untouched woodland area	No applications to land, woodland area	ND	ND	ND	ND	ND
Woodland, Control	St Peter	St Peters valley	No applications to land, woodland area	ND	ND	ND	ND	ND
Woodland, Control	St Ouen	Greve de Lecq	No applications to land, woodland area.	ND	ND	ND	ND	ND
Meadow, Control	St Clement	Control field - no recent agriculture	No applications to land	ND	ND	ND	ND	ND

The below soil category samples were sent to [VERITAS](#), this lab's reporting limit for each of the 4 PFAS are shown in the table heading.

Land type	Location (parish)	Description	Notes	PFHxS (µg/kg) (ND = <1ug/kg)	PFNA (µg/kg) (ND = <1ug/kg)	PFOA (µg/kg) (ND = <1ug/kg)	PFOS (µg/kg) (ND = <1ug/kg)	Sum of Four PFAS (µg/kg)
Agricultural field	St Mary	Used for growing produce	No applications to land	ND	ND	ND	ND	ND
Agricultural field	St Mary	Used for growing produce	No applications to land	ND	ND	ND	ND	ND
Agricultural field	Trinity	Used for growing produce	No applications to land	ND	ND	ND	2.3	2.3
Agricultural field	St Lawrence	Used for growing produce	No applications to land	ND	ND	ND	ND	ND
Agricultural field	St Lawrence	Used for growing produce	No applications to land	ND	ND	ND	ND	ND
Agricultural field	St Mary	Used for growing produce	Multiple biosolid applications to land	ND	ND	ND	1.04	1.04
Agricultural field	St Clement	Used for growing produce	Multiple biosolid applications to land	ND	ND	ND	ND	ND
Agricultural field	St John	Used for growing produce	Filter sludge application	ND	ND	ND	ND	ND
Agricultural field	St John	Used for growing produce	Filter sludge application	ND	ND	ND	ND	ND
Agricultural field	Trinity	Used for growing produce	Filter sludge application	ND	ND	ND	2.86	2.86
Agricultural field	St Lawrence	Used for growing produce	Filter sludge application	ND	ND	ND	ND	ND
Agricultural field	St Lawrence	Used for growing produce	Filter sludge application	ND	ND	ND	ND	ND
Agricultural field	St John	Used for growing produce	Filter sludge application	ND	ND	ND	ND	ND
Agricultural field	St John	Used for growing produce	Filter sludge application	ND	ND	ND	1.47	1.47
Agricultural field	St Lawrence	Used for growing produce	Filter sludge application	ND	ND	ND	5.31	5.31
Agricultural field	St Martin	Under grass	Biosolid application TBC	ND	ND	ND	ND	ND
Agricultural field	St Martin	Under grass	Biosolid application	ND	ND	ND	ND	ND
Agricultural field	St Ouen	Under Cover Crop	Biosolid application	ND	ND	ND	5.21	5.21
Agricultural field	St Mary	Under grass	Slurry application	ND	ND	ND	ND	ND
Agricultural field	St Mary	Under grass	Biosolid application	ND	ND	ND	ND	ND
Agricultural field	St Mary	Under grass	Biosolid application	ND	ND	ND	1.92	1.92
Agricultural field	St John	Under grass	Biosolid application	ND	ND	ND	ND	ND

Land type	Location (parish)	Description	Notes	PFHxS (µg/kg) (ND = <1ug/kg)	PFNA (µg/kg) (ND = <1ug/kg)	PFOA (µg/kg) (ND = <1ug/kg)	PFOS (µg/kg) (ND = <1ug/kg)	Sum of Four PFAS (µg/kg)
Agricultural field	Grouville	Used for growing produce	No applications to land	ND	ND	ND	ND	ND
Agricultural field	Grouville	Used for growing produce	No applications to land	ND	ND	ND	ND	ND
Agricultural field	Grouville	Used for growing produce	No applications to land	ND	ND	ND	ND	ND
Agricultural field	Grouville	Used for growing produce	No applications to land	ND	ND	ND	ND	ND
Agricultural field	Trinity	Used for growing produce	No applications to land	ND	ND	ND	ND	ND
Agricultural field	St Martin	Used for growing produce	No applications to land	ND	ND	ND	ND	ND
Agricultural field	Grouville	Used for growing produce	No applications to land	ND	ND	ND	1.91	1.91
Agricultural field	St Ouen	Used for growing produce	No applications to land	ND	ND	ND	1.13	1.13
Agricultural field	Grouville	Currently under cultivation	Agricultural land sampled following crop sample. Currently growing crop.	ND	ND	ND	ND	ND
Agricultural field	Trinity	Currently under cultivation	Agricultural land. Received JW sludge in 2025	ND	ND	ND	2.86	2.86
Agricultural field	St Mary	Currently under cultivation	No applications to land, field currently under cover crop.	ND	ND	ND	ND	ND

The below soil category samples were sent to [VERITAS](#), this lab's reporting limit for each of the 4 PFAS are shown in the table heading.

Land type	Location (parish)	Description	Notes	PFHxS (µg/kg) (ND = <1ug/kg)	PFNA (µg/kg) (ND = <1ug/kg)	PFOA (µg/kg) (ND = <1ug/kg)	PFOS (µg/kg) (ND = <1ug/kg)	Sum of Four PFAS (µg/kg)
Valley	St Brelade	sides of valley	No applications to land, recreational land	ND	ND	ND	1.01	1.01
Valley	St Brelade	middle of valley	No applications to land, recreational land	ND	ND	ND	ND	ND

The below soil category samples were sent to [VERITAS](#), this lab's reporting limit for each of the 4 PFAS are shown in the table heading.

Land type	Location (parish)	Description	Notes	PFHxS (µg/kg) (ND = <1ug/kg)	PFNA (µg/kg) (ND = <1ug/kg)	PFOA (µg/kg) (ND = <1ug/kg)	PFOS (µg/kg) (ND = <1ug/kg)	Sum of Four PFAS (µg/kg)
Agricultural field, within plume	St Peter	Fallow	Agricultural land currently lying fallow.	ND	ND	ND	3.49	3.49
Agricultural field, within plume	St Peter	Used for growing produce	Received Biosolids 2019	ND	ND	ND	6.34	6.34

Land type	Location (parish)	Description	Notes	PFHxS (µg/kg) (ND = <1µg/kg)	PFNA (µg/kg) (ND = <1µg/kg)	PFOA (µg/kg) (ND = <1µg/kg)	PFOS (µg/kg) (ND = <1µg/kg)	Sum of Four PFAS (µg/kg)
Agricultural field, within plume	St Peter	Used for growing produce	Received Biosolids 2019	ND	ND	ND	6.38	6.38
Agricultural field, within plume	St Peter	Used for growing produce	Received Biosolids 2019	ND	ND	ND	11.7	11.7
Agricultural field, within plume	St Peter	Used for growing produce	Received Biosolids 2018	ND	ND	ND	13.2	13.2
Agricultural field, within plume	St Peter	Used for growing produce	Received Biosolids 2019	ND	ND	ND	5.97	5.97
Agricultural field, within plume	St Peter	Some historic produce growth	No record of application to land	ND	ND	ND	9	9
Agricultural field, within plume	St Peter	Some historic produce growth	No record of application to land	ND	ND	ND	3.14	3.14
Agricultural field, within plume	St Peter	Some historic produce growth	No record of application to land	ND	ND	ND	23	23
Agricultural field, within plume	St Peter	Some historic produce growth	No record of application to land	ND	ND	ND	6.01	6.01
Agricultural field, within plume	St Peter	Some historic produce growth	No record of application to land	ND	ND	ND	3.49	3.49
Agricultural field, within plume	St Peter	Some historic produce growth	No record of application to land	ND	ND	ND	9.71	9.71
Agricultural field, within plume	St Peter	Some historic produce growth	No record of application to land	ND	ND	ND	1.69	1.69

4. PFAS LEVELS IN BIOSOLIDS

During the sewage treatment process large settlement tanks settle out solids in the sewage. These solids go through several processes including thickening, pasteurisation and digestion to produce biosolids. Biosolids provide nutrients and organic matter for the soil and crops and can be applied to grassland or arable land, where it is ploughed in or cultivated following application.

Biosolids can, and do replace, the need for compound inorganic fertilisers by providing soil nutrients essential for plant growth principally nitrogen (N) and phosphate (P₂O₅), as well as sulphur, magnesium, potassium and trace elements which are not always found in manufactured fertilisers.

The Government of Jersey's Department for Infrastructure and Environment appointed a FACTS¹ qualified specialist to ensure that the properties of applied biosolids align with the characteristics of the receiving soils and the requirements of specific crop rotations.

¹ FACTS, The Fertiliser Advisers Certification & Training Scheme (FACTS) is a nationally validated course developed by the fertiliser industry as a form of self-regulation. It was set up in response to an E.U. investigation into the standards of competence of those advising on fertiliser use.

Of all the components of soil, organic matter is probably the most important and most misunderstood. Soil organic matter serves as a reservoir of nutrients and water in soil, it stimulates the living soil biomass, aids in reducing compaction and surface capping and increases soil water infiltration.

Recycling biosolids/compost to agricultural land increases soil organic matter levels with the following benefits:

- Improved soil organic matter levels increase water and pesticide retention providing more resistance to drought and reducing the likelihood of water run-off and erosion after heavy rainfall. It also improves soil drainage characteristics.
- Improved soil organic matter levels aid soil structure development, increasing soil workability, encouraging crop root development and increasing crop yields.
- Higher soil organic matter levels stimulate life within the soil from microbial activity to earthworms.
- The organic matter from within biosolids/compost stimulates the soil biomass to break down crop residues recycling nutrients essential for plant growth.
- Agricultural fields regularly treated with biosolids/compost are healthier, more productive and easier to work than soils relying solely on inorganic fertilisers.
- Regular biosolids/compost additions increase carbon capture (sequestration) in the soil.

There are strict regulations in place for the use of biosolids in agriculture governed by the Department for Environment, Food and Rural Affairs (Defra), these are followed by the Government of Jersey.

Biosolids are applied in accordance with [Water Pollution \(Code of Good Agricultural Practice\) \(Jersey\) Order 2015](#) The Sludge (Use in Agriculture) Regulations and The Code of Practice for the Agricultural Use of Sewage Sludge.

More information on biosolid disposal including the rate of application can be found here: [Bellozanne Valley Wastewater Treatment Plant Summary](#)

The Safe Sludge Matrix is followed, this is an agreement between water and sewage operators and major retailers, which stipulates the suitability of biosolids in relation to different crop groups and rotation.

The Safe Sludge Matrix ensures the highest possible food safety giving retailers and the food industry confidence the use of biosolids in agriculture is safe and sustainable.

The Government of Jersey's PFAS Steering Group agreed that the disposal of groundwater from boreholes at the airport fire training ground should be stopped from discharging to Island's foul sewer network. Since the cessation of pumping of this groundwater there has been a significant reduction in PFAS entering the sewer network. On 2 May 2025, the total PFOS concentration from the fire training was 58,100 ng/l dropping to 189 ng/l on 28 October 2025 after the pumping was ceased. This shows a three-hundred-fold reduction.

Stopping this discharge appears to have had a positive effect of lowering PFOS concentrations in the enhanced treated biosolids being produced at Bellozanne with results of the sum of PFAS below dropping from around 50ug/kg to 14.1ug/kg. This result appears lower than typical UK PFAS concentrations in Biosolids.

These data must be treated with caution given the variability of previous data, as the apparent reduction represents only one sample. Further sampling is required to evidence whether this reduction is ongoing.

Table 3. PFAS levels in enhanced treated biosolids produced at the sewage treatment works

Date	PFHxS (µg/kg)	PFNA (µg/kg)	PFOA (µg/kg)	PFOS (µg/kg)	Sum of Four PFAS (µg/kg)
22 May 2024	<5	<5	<5	46.8	46.8
15 Aug 2024	Not known	Not known	<4	20.9	20.9
11 Dec 2024	Not known	Not known	<1	53.2	53.2
3 April 2025	<1	<1	<1	60.4	60.4
9 July 2025	<0.5	<0.5	<0.5	23.5	23.5
28 Oct 2025	<0.5	<0.5	<0.5	14.1	14.1
17 Nov 2025	<0.5	<0.5	<0.5	19.9	19.9

5. PFAS LEVELS IN SEWAGE TREATMENT WORKS

Samples were taken from what is entering the sewage treatment works (influent) and what is exiting the works (effluent) (Table 4). Due to the low concentrations, these are reported as ng/l rather than ug/l (i.e. 1000 times less).

Table 4. PFAS levels in the influent and effluent from the Sewage Treatment Works

Date	STW Influent/ Effluent	PFHxS (ng/l)	PFNA (ng/l)	PFOA (ng/l)	PFOS (ng/l)	Sum of four PFAS (ng/l)
2 May 2025	Influent	21.1	<10	29.4	248.0	298.5
17 June 2025	Influent	17.3	<5	<3.25	46.9	64.2
9 July 2025	Influent	<50	<50	<32.5	<32.5	<50
28 Oct 2025	Influent	<50	<50	<32.5	99.8	99.8
17 Nov 2025	Influent	8.77	<5	<3.25	11.4	20.2

Date	STW Influent/ Effluent	PFHxS (ng/l)	PFNA (ng/l)	PFOA (ng/l)	PFOS (ng/l)	Sum of four PFAS (ng/l)
2 May 2025	Effluent	6.4	<1	6.9	13.9	27.2
17 June 2025	Effluent	7.7	<1	9.17	16.4	33.3
9 July 2025	Effluent	<10	<10	12.6	30.4	43.0
28 Oct 2025	Effluent	<50	<50	<32.5	84.7	84.7
17 Nov 2025	Effluent	<50	<50	<32.5	<32.5	<50

6. PFAS LEVELS IN PRIVATE WATER SUPPLIES

Data from Jersey Water suggests that approx. 6,693 people in Jersey are connected to private water supplies for drinking water. Land Resource Management and Pollution Control also compile data on private water supplies in Jersey.

Current data indicates that 1,759 properties consume water from a borehole, while 485 consume water from a well (e.g. drinking water from their private water supply). A breakdown of how private water supplies are used in Jersey

Table 5. The number of boreholes and wells by use in Jersey

Usage	Boreholes	Wells
Agriculture	18	3
Amenity	15	4
Business	122	9
Garden and pool	107	21
Garden watering	508	223
Garden, business	5	2
House and Business	52	12
House and garden	815	178
House and pool	30	2
House supply	630	258
House, Garden, Business	21	3
House, Garden, Other	12	7
House, garden, pool	199	25
Licensed	117	3
Total	2,651	750
Properties using a private water supply for drinking water	1,759	485

In 2019, in response to initial identification of PFAS in a borehole in St Peter, an Island wide sampling survey for PFOS and PFOA was undertaken by the Government of Jersey on Natural Environment's (NE) groundwater monitoring sites. This data was reported in the [Officer Technical Group's interim report of 2019](#).

This was followed up with a broader suite of 14 PFAS parameters in 2020 at those sites where the highest levels of PFOS/PFOA detected (reported in [Officer Technical Group's interim report of 2020](#)).

A subsidised sampling programme was introduced by the Minister for the Environment in 2022 and a further 18 sites were sampled over a six-month period for a fuller suite (27 determinants). Sampling was undertaken upon request at locations within the original plume area (seven) and wider across the Island (11).

In November 2022, a further full Island wide groundwater survey of Natural Environment's routine sampling sites were sampled for 49 PFAS parameters. This was repeated for ten of those sites in May 2023.

The data from the subsidised sampling and wider Island sampling is presented in the table below. Results have been compared against the sum of four PFAS and the sum of forty-eight PFAS. When these samples were analysed, the full 48 parameters were not available, however the notes below indicate how many of the 48 were included.

Site locations include a broad representation of rural, urban, domestic, agricultural and semi-industrial areas which produces a range of individual PFAS demonstrating a variety of potential sources. The table includes sites that are within the Hydrogeological Survey derived plume.

Where sites were sampled on multiple occasions a range of results is provided. The results confirm the ubiquitous and persistent nature of PFAS in the wider environment.

From mid-July 2023, the focus of all sampling concentrated on the Hydrogeological Survey around the Airport. A total of 62 groundwater and surface water sites in the St Ouen's Bay and Pont Marquet catchments were sampled each quarter from July 2023 to April/May 2024 as part of the PFAS-hydrogeological Phase 2 survey. These data are reported separately in the [PFAS Hydrogeological Study Phase 2 report](#).

Forty groundwater and surface water sites were selected for ongoing quarterly monitoring in 2025 (June, September, and November/December). In addition, five new locations were identified and sampled in line with the report's recommendations. The exact number of sites sampled may vary during each period, for example, if a stream or borehole is dry, though such instances are relatively few. Sampling locations include domestic, disused, or monitoring wells and boreholes, as well as streams, ponds and outfalls.

A maximum of 196 groundwater and surface water locations were sampled island-wide for PFAS since 2019, as part of the hydrogeological survey and wider-island background level monitoring. However, some of these will be the same locations across different monitoring programmes. Sites are a mixture of domestic, disused or monitoring well/boreholes and streams, ponds or outfalls and in general terms will be taken before any water treatment is applied. All of this data has been provided to the Panel to seek their view whether this is sufficiently representative of the eight inland water catchment areas.

Key for table

* - in 2022 this suite only included 44 of the 48 parameters which now make up the sum of 48

\$ - in 2023 this suite only included 45 of the 48 parameters which now make up the sum of 48

& - in this sampling programme this suite only included 27 of the 48 parameters which now make up the sum of 48

- Plume

<LOD - less than limit of detection

Table 6. Levels of PFAS in groundwater by Parish

Parish	Year of Sample (no. of samples)	Concentration range for sum of 4 PFAS (ng/l)	Concentration range for sum of 48 PFAS (ng/l)	Key
Grouville	2022(1)	13	15	*
St Brelade	2022(1), 2023(1)	99-101	237-242	*\$
St Brelade	2022(1)	19	38	*
St Brelade	2022(1)	21	55	*
St Brelade	2022(1)	1319	2162	#*
St Brelade	2022(1)	34	67	*
St Brelade	2022(2)	451-2871	591-3207	#*&
St Brelade	2022(2)	20-27	24-39	&
St Brelade	2022(1)	17	23	&
St Brelade	2022(2)	12-15	15-18	&
St Brelade	2022(1)	5	5	&
St Clement	2022(1), 2023(2)	46-49	64-67	*\$
St Helier	2022(1), 2023(1)	<LOD	<LOD	*\$

St Helier	2022(1)	8	9	*
St Helier	2022(1)	13	32	*
St Helier	2022(1)	21	29	*
St Helier	2022(1)	10	10	*
St John	2022(3)	39-262	39-337	&
St Lawrence	2022(1)	8	11	*
St Lawrence	2022(1), 2023(1)	31-46	31-48	*\$
St Lawrence	2022(1), 2023(1)	9-10	19-48	*\$
St Lawrence	2022(1)	9	105	*
St Lawrence	2022(1)	5	38	*
St Martin	2022(1), 2023(1)	11-27	17-45	*\$
St Martin	2022(1)	4	4	*
St Martin	2022(1)	8	8	&
St Mary	2022(1)	9	9	*
St Mary	2022(1), 2023(1)	8-21	8-37	*\$
St Mary	2022(1)	5	5	*
St Ouen	2022(1)	196	262	#*
St Ouen	2022(1)	28	50	*
St Ouen	2022(1)	31	46	*
St Ouen	2022(1)	10	20	*
St Ouen	2022(1), 2023(1)	70-72	89-93	*\$
St Ouen	2022(1)	49	111	*
St Ouen	2022(1)	5	5	&
St Ouen	2022(1)	7	9	&
St Ouen	2022(1)	4	7	&
St Peter	2022(1), 2023(1)	10-12	17-21	*\$
St Peter	2022(1)	14	19	*
St Peter	2022(1)	20	38	*
St Peter	2022(1)	18	20	*
St Peter	2022(2)	537-819	880-1291	#*&
St Peter	2022(1)	551	791	#*
St Peter	2022(2)	2074-2125	3089-3150	#*&
St Peter	2022(1)	1767	2117	#&
St Peter	2022(1)	20644	24470	#&
St Peter	2022(2)	36-97	69	167
St Peter	2022(1)	3	3	&
St Peter	2022(1)	326	720	#&
St Peter	2022(1)	170-182	501-548	&
St Peter	2022(1)	1888	2529	#&
Trinity	2022(1)	27	44	*
Trinity	2022(1), 2023(1)	9-11	18-19	*\$
Trinity	2022(1)	26	32	*

7. PFAS LEVELS IN THE ENVIRONMENT

The following sampling principles were adopted for all foam, seawater and freshwater sampling by the Water & Air team:

- Samplers wore nitrile powderless gloves which were replaced or “double-gloved” immediately prior to any samples being taken, and additionally wherever necessary to avoid cross-contamination.
- Samplers did not wear PFAS-containing sunscreen.
- Labelling for all PFAS sampling was completed with PFAS-free Sharpies.
- Any equipment which was not single-use was cleaned with PFAS-free Liquinox.
- Sample containers were supplied by the analysing laboratory or lab supplier and were single-use, therefore no prior rinsing required.
- Samples were stored in chilled cool boxes in the field before being transferred to a fridge prior to shipment.
- Additionally, standard PFAS-sampling procedures were followed, as per training received during the PFAS-hydrogeological survey.

Quality Assurance/Quality Control (QAQC) and sampling principles specific to a methodology are detailed below in their relevant section.

7.1 PFAS LEVELS IN FRESH WATER FOAM

In Autumn 2025 a freshwater foam sample was collected from the main lagoon at the former Simon Sand Quarry, where foam had previously been reported. A corresponding sub-surface water sample was collected at the same location in the lagoon.

The weather conditions were a strong SSW wind, overcast and dry. Foam was accumulating on the water surface on the edges of the western-side of the main lagoon.

Sample location	What3Words sample location	Sample type
Former Simon Sand Quarry – main lagoon	Along water line between approx.: ///that.tomb.along ///lungs.darkens.shifting	Freshwater foam sample
Former Simon Sand Quarry – main lagoon	///lungs.darkens.shifting	Freshwater sample

Freshwater foam was collected in separate single-use polyethylene (PE) “zip-lock” style bags using a metal spoon. The spoon was cleaned with Liquinox then rinsed with laboratory-supplied PFAS-free deionised water before sampling and at regular intervals. Samplers tried to avoid scooping water or debris into the bagged foam samples as the laboratory would likely need to dilute the samples if sediment was present, raising the limit of detection.

The eight sealed sample bags were hung in a fridge until the foam collapsed into liquid. This took 48 hours. The liquid was directly transferred into bottles provided by the lab, whilst sediment transfer was avoided.

Nitrile powder-free gloves were worn during sampling, bag handling and sample transfer. Gloves were also changed frequently and between sampling locations.

Verified PFAS-free PE bags could not be sourced. Therefore, a Quality Assurance Quality Control (QAQC) rinse blank of the sample collection bag was sent for analysis. PFAS-free DI

water (supplied by the lab) was poured into an unused sample bag and left in-situ for the same 48-hour period, to mimic conditions of foam-collected bags. PFAS were not detected above the LOD.

The samples were sent to ALS Laboratories in Hawarden for PFAS Broad Suite analysis by LC-MS/MS. Dilutions were applied as appropriate by the laboratory in accordance with their policies and processes. In the below instance, the lab applied a dilution to the foam sample:

Sample	Location	PFHxS (ng/l) (LOD = <1)	PFNA (ng/l) (LOD = <1)	PFOS (ng/l) (LOD = <0.65)	PFOA (ng/l) (LOD = <0.65)	Sum of 4 PFAS (ng/l)
Foam sample	Simon Sand Quarry Pond	3650	1780	270000	1420	276850
Water sample	Simon Sand Quarry Pond	255	9.71	544	59.8	868.51
QAQC bag rinse blank	N/A	<1	<1	<0.65	<0.65	0

7.2 PFAS LEVELS IN SEA FOAM

Sea foam sampling requires certain environmental conditions (including suitable wave and wind direction) to produce enough foam for collection. The same sampling method was employed for sea foam and freshwater foam collection. Method details can be found in the Freshwater Foam section.

Two samples were collected in Winter 2026 at Le Grouet Slipway near Corbiere and at St Brelade's Bay. The south-westerly wind and the tail end of Storm Chandra produced large volumes of sea foam at St Brelade's Bay which maintained its form, with the wind driving the foam up the beach off the tide line. However, any sea foam produced on St Ouen's Bay was short-lived, built on the incoming water line and dissipated quickly, meaning samples could not be collected. The wind direction and wind strength, along with the slipway and rockpools at Le Grouet Slipway (1500m SSW from Le Braye) provided a suitable sample collection location between strong wave action, and close to St Ouen's Bay.

The sea foam sampling locations were:

Sample location	What3Words sample location
Le Grouet slipway	///darting.author.drifter
St Brelade's Bay	///steeps.taillights.compact

The samples were sent to ALS Laboratories in Hawarden for PFAS Broad Suite analysis by LC-MS/MS. The lab is ISO17025 accredited but the method is not accredited for seawater. It should be noted that saline samples sometimes require dilution by the laboratory which will alter the LODs. The analytical results were as follows in ng/l:

Location	PFHxS (ng/l) (LOD = <1)	PFNA (ng/l) (LOD = <1)	PFOS (ng/l) (LOD = <0.65)	PFOA (ng/l) (LOD = <0.65)	Sum of 4 PFAS (ng/l)
Le Grouet Slipway	170	166	966	504	1806
St Brelade's Bay	289	<50	166	550	1005

7.3 PFAS LEVELS IN SEAWEED

Three seaweed samples were collected in Summer 2025 from the following locations:

Sample location	What3Words sample location	Seaweed sample weight	Seaweed type
West Park - St Aubin's Bay	///wage.sweeper.snows	90g	Sea lettuce
Fliquet	///evaded.hardest.bumped	74g	Bladderwrack
La Braye - St Ouen's Bay	///polite.outsize.daily	84g	Bladderwrack

n.b. sea water samples were also taken at the above locations.

Sea lettuce (*Ulva* species) and bladderwrack (*Fucus vesiculosus*) (a "vraic") were chosen as both are applied to land in Jersey. The St Ouen's Bay location was chosen for the proximity to the PFAS-plume, at a location where the closest and largest area of rocky substrate for seaweed collection was available. The St Aubin's Bay sea lettuce was free-floating, in a typical area where it is removed from the beach. Fliquet was chosen as a control site with suitable rocky substrate for the presence of bladderwrack.

The entire free-floating sea lettuce frond was collected from the seawater surface or shallow seawater column. Whereas for bladderwrack, a representative sample of the blade tissue (tips) was collected, including the bladders where present and the bladderwrack was attached to rock. However, the base (holdfast) was not sampled to avoid any sediment or encrusting biota.

The laboratory PASS requested a minimum of 50g of seaweed sample to be collected in a polypropylene container. Samples were placed directly into the single-use sample container and labelled with date & time of collection, location and seaweed type.

Sample containers were stored in a chilled cool box in the field, then refrigerated until dispatch in a polystyrene box with cool packs.

Seaweed samples were analysed at PASS for the following "Suite of 4 EU Regulated PFAS" analysis with lower Limit of Quantification (LOQ).

The seaweed analysis results were:

Sample	Location	PFHxS (ug/kg) (LOQ = 0.004)	PFNA (ug/kg) (LOQ = 0.001)	PFOS (ug/kg) (LOQ = 0.002)	PFOA (ug/kg) (LOQ = 0.001)	Sum of 4 PFAS (ug/kg)
Bladderwrack	La Braye - St Ouens Bay	0.00483	0.00150	0.0451	0.00257	0.0540
Bladderwrack	Fliquet	< 0.00400	0.00177	0.00487	0.00206	0.00869
Sea Lettuce	West Park - St Aubin's Bay	< 0.00400	0.00267	0.0162	0.00370	0.0226

7.4 PFAS LEVELS IN SEAWATER

Six seawater samples were collected in Summer 2025 from the following locations:

Sample location	What3Words sample location	Rationale
West Park - St Aubin's Bay	///wage.sweeper.snows	Near former bathing pool and same location as "bathing water" sampling site. In the bay where STW discharges.
La Haule – St Aubin's Bay	///darning.partners.exports	Same location as "bathing water" sampling site. In the bay where STW discharges.
Greve de Lecq	///exonerate.stunned.newscaster	A control site and "bathing water" location.
Fliquet	///router.transcribe.extinction	A control site on far north-east of island.
La Braye - St Ouen's Bay (Duplicate sample in addition)	///venues.power.muscular	For proximity to the PFAS-plume.

Seawater samples were collected 1m below the sea surface, in the same method applied for "bathing water" microbiological sampling. However, for this PFAS sampling, the sampler entered the sea without a wet suit, sunscreen or body lotions (to reduce any risk of sample cross-contamination). The sampler submerged the sample bottle to 1m below the surface and open/filled/closed the bottle at that depth position.

The samples were sent to ALS Laboratories in Hawarden for PFAS Broad Suite analysis by LC-MS/MS. The lab is ISO17025 accredited but the method is not accredited for seawater. It should be noted that saline samples sometimes require dilution by the laboratory which will alter the LODs. The analytical results were as follows in ng/l:

Location	PFHxS (ng/l) (LOD = <1)	PFNA (ng/l) (LOD = <1)	PFOS (ng/l) (LOD = <0.65)	PFOA (ng/l) (LOD = <0.65)	Sum of 4 PFAS (ng/l)
Fliquet	<1	<1	<0.65	<0.65	0

Location	PFHxS (ng/l) (LOD = <1)	PFNA (ng/l) (LOD = <1)	PFOS (ng/l) (LOD = <0.65)	PFOA (ng/l) (LOD = <0.65)	Sum of 4 PFAS (ng/l)
Greve de Lecq	<1	<1	<0.65	<0.65	0
La Braye – St Ouen's Bay	<5	<5	<3.25	<3.25	0
La Haule – St Aubin's Bay	<1	<1	<0.65	<0.65	0
West Park – St Aubin's Bay	<1	<1	<0.65	<0.65	0
QAQC Duplicate (La Braye)	<5	<5	<3.25	<3.25	0

The results were queried by the sampling team, and the laboratory confirmed that:

- (1) The La Braye sample and its duplicate had the same dilutions applied, but a greater dilution compared to the remaining samples in this batch. This means these two sample results have a higher LOD compared to the other samples. No PFAS were detected above LOD for La Braye and its duplicate sample.
- (2) For the four remaining samples, no dilutions were applied and these have standard LODs.
- (3) However, at two sites, two PFAS compounds have a different less than figure compared to the standard LOD: Greve de Lecq PFPA of <1.5 ng/l and West Park St Aubin's Bay 6:2 FTS of <2 ng/l. The lab stated that, in these two instances, the LOD would have been raised if the qualifying ion did not match, or if the peak shape was poor. Both are below LOD.

Additionally, one seawater sample was taken at Les Minquiers Reef in Autumn 2024 to provide PFAS data for an offshore remote location. The location coordinates were: N48° 57.395'. W002° 03.506' .

The offshore sample was taken at approximately 25cm depth below the sea surface from the side of a boat. The sea was rough and therefore it was difficult to keep a consistent depth, but the sample was collected underwater. The weather conditions were NE F4.

The sample was analysed by the ALS Hawarden lab for PFAS Broad Suite by LC-MS/MS:

Location	PFHxS (ng/l) (LOD = <1)	PFNA (ng/l) (LOD = <1)	PFOS (ng/l) (LOD = <0.65)	PFOA (ng/l) (LOD = <0.65)	Sum of 4 PFAS (ng/l)
Les Minquiers Reef	<1	<1	<0.65	<0.65	0

8. SURFACE WATER (JERSEY WATER)

Jersey Water have collected samples on a regular basis since 2020 from the streams which it may abstract water for drinking water purposes. The samples are sent to an ISO 17025 accredited laboratory in the UK for analysis. The samples are analysed for 48 different PFAS compounds and a summary of these results are found in their annual Water Quality report ([2025-WATER-QUALITY-REPORT.pdf](#)).

The table below provides a summary of the average results, since 2020, for PFOS, PFOA, PFHxS and PFNA, from Jersey Water's stream sampling programme.

It should be noted that due to analytical improvements over time, the limit of detection (LOD) has reduced since 2020 and is currently 1 ng/l.

Location	PFHxS (ng/l)	PFNA (ng/l)	PFOS (ng/l)	PFOA (ng/l)	Sum of 4 PFAS (ng/l)
	LOD = 1 (previously 5 ng/l)	LOD = 1 (previously 5 ng/l)	LOD = 1 (previously 5 ng/l)	LOD = 1 (previously 5 ng/l)	
Bellozanne Stream	4.1	<5.0	9.8	5.9	20.7
Dannemarche Stream	4.3	<5.0	7.5	5.8	15.1
Ferlands Stream	1.7	<5.0	3.3	2.3	5.8
Grands Vaux Stream	3.8	<5.0	7.1	3.9	16.3
Greve de Lecq Stream	4.3	<5.0	3.2	5.1	12.6
Handois East Stream	6.8	<5.0	11.3	17.3	37.5
Handois West Stream	5.4	<5.0	9.7	6.2	23.1
La Hague Stream	4.3	<5.0	4.5	5.6	15.4
Le Mourier Combined Stream	5.3	<5.0	4.4	7.5	19.6
Little Tesson Stream	3.9	<5.0	13.4	6.3	26.4
Millbrook Stream	4.2	<5.0	10.3	6.7	20.9
Queens Valley Side Stream	1.9	<5.0	6.8	8.5	16.4
Queens Valley Stream	2.8	<5.0	5.2	6.1	14.1
St Catherine Stream	2.4	<5.0	5.9	6.0	14.1
Tesson Stream	5.1	<5.0	6.0	5.0	15.6
Vallee des Vaux Stream	4.8	<5.0	15.5	6.7	26.9

Location	PFHxS (ng/l)	PFNA (ng/l)	PFOS (ng/l)	PFOA (ng/l)	Sum of 4 PFAS (ng/l)
	LOD = 1 (previously 5 ng/l)	LOD = 1 (previously 5 ng/l)	LOD = 1 (previously 5 ng/l)	LOD = 1 (previously 5 ng/l)	
Val de la Mare East Stream	4.1	<5.0	4.4	12.1	28.2
Val de la Mare West Stream	7.0	<5.0	4.1	10.8	22.4
Pont Marquet Stream	72.1	<5.0	155.9	16.7	247.7