



National Surface Water Quality Monitoring Programme (NAWA)

Federal Office for the Environment FOEN

Pilot study PFAS in surface waters

Period: April to December 2021

Sampling sites: NADUF (NAWA FRACHT) and selected cantonal

Sum of the 22 investigated PFAS, mean values per sampling site

Watercourse	Location	Discharge*	Sum 22PFAS	Sampling	Samplings	Substances detected
		m ³ /s	µg/l		Number	Number
Rhein	Weil	1049	0.0081	28d M, Q-prop. + spot	9+4	11
Rhein	Rekingen	441	0.0065	28d M, Q-prop.	3	8
Rhein	Diepoldsau	232	0.0034	28d M, Q-prop.	6	3
Rhône	Chancy	338	0.0083	28d M, Q-prop.	4	10
Rhône	Porte du Scex	182	0.0002	28d M, Q-prop.	3	5
Aare	Brugg	313	0.0087	28d M, Q-prop.	2	9
Aare	Hagneck	175	0.0026	28d M, Q-prop.	6	8
Reuss	Mellingen	140	0.0062	28d M, Q-prop.	6	9
Limmat	Dietikon	95	0.0061	28d M, t-prop.	6	10
Thur	Andelfingen	47	0.0081	28d M, Q-prop.	4	9
Inn	S-Chanf	23	0.0003	28d M, Q-prop.	6	4
Kleine Emme	Littau	15	0.0031	28d M, Q-prop.	4	6
Birs	Redingbrücke	15	0.0123	28d M, t-prop.	9	11
Wiese	Basel	11	0.0062	spot samples	2	9
Glatt	Rheinsfelden	8	0.0379	28d M, Q-prop.	6	11
Ergolz	Mündung	4	0.0286	spot samples	6	11

M: mixed samples; Q-prop: discharge proportional; t-prop: time proportional

*long-term mean discharge: <https://www.hydrodaten.admin.ch/>

Total number of samples n = 86



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Statistical key figures for total sample set

Concentrations in µg/l n.d.: not detectable

Number of samples n = 86

Substance	10% percentile	Median	90% percentile	Maximum
PFBA	< 0.001	0.0016	0.0045	0.0096
PFPeA	n.d.	0.0015	0.0042	0.0115
PFHxA	n.d.	0.0014	0.0056	0.0090
PFHpA	n.d.	0.0006	0.0016	0.0037
PFOA	n.d.	0.0009	0.0023	0.0076
PFNA	n.d.	n.d.	< 0.0005	0.0014
PFDA	n.d.	n.d.	< 0.0005	0.0021
PFBS	n.d.	n.d.	0.0016	0.0046
PFHxS	n.d.	< 0.001	0.0020	0.0038
PFOS	n.d.	0.001	0.0032	0.0077
PFDS	n.d.	n.d.	n.d.	0.0079
6:2 FTS	n.d.	n.d.	0.0014	0.0049

Perfluorinated carboxylic acid

PFBA	Perfluorobutanoic acid
PFPeA	Perfluoropentanoic acid
PFHxA	Perfluorohexanoic acid
PFHpA	Perfluoroheptanoic acid
PFOA	Perfluorooctanoic acid
PFNA	Perfluoronanoic acid
PFDA	Perfluorodecanoic acid
PFUnDA*	Perfluorundecanoic acid
PFDoDA*	Perfluorododecanoic acid

Perfluorinated sulphonic acids

PFBS	Perfluorobutane sulfonic acid
PFPeS*	Perfluoropentanesulfonic acid
PFHxS	Perfluorohexane sulfonic acid (linear + branched isomers)
PFHpS*	Perfluoroheptane sulfonic acid
PFOS	Perfluorooctane sulfonic acid (linear + branched isomers)
PFNS*	Perfluoronon sulfonic acid
PFDS	Perfluorodecane sulfonic acid

Polyfluorinated substances

4:2-FTS*	4:2-Fluorotelomer sulfonic acid
6:2-FTS	6:2-Fluorotelomer sulfonic acid
8:2-FTS*	8:2-Fluorotelomer sulfonic acid
DONA*	Perfluoro-4,8-dioxa-3H-nonanoic acid
6:2-Cl-PFESA*	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid
PFPrOPrA*	Perfluoro-2-propoxypropanoic acid

*Substance was not detectable in any sample