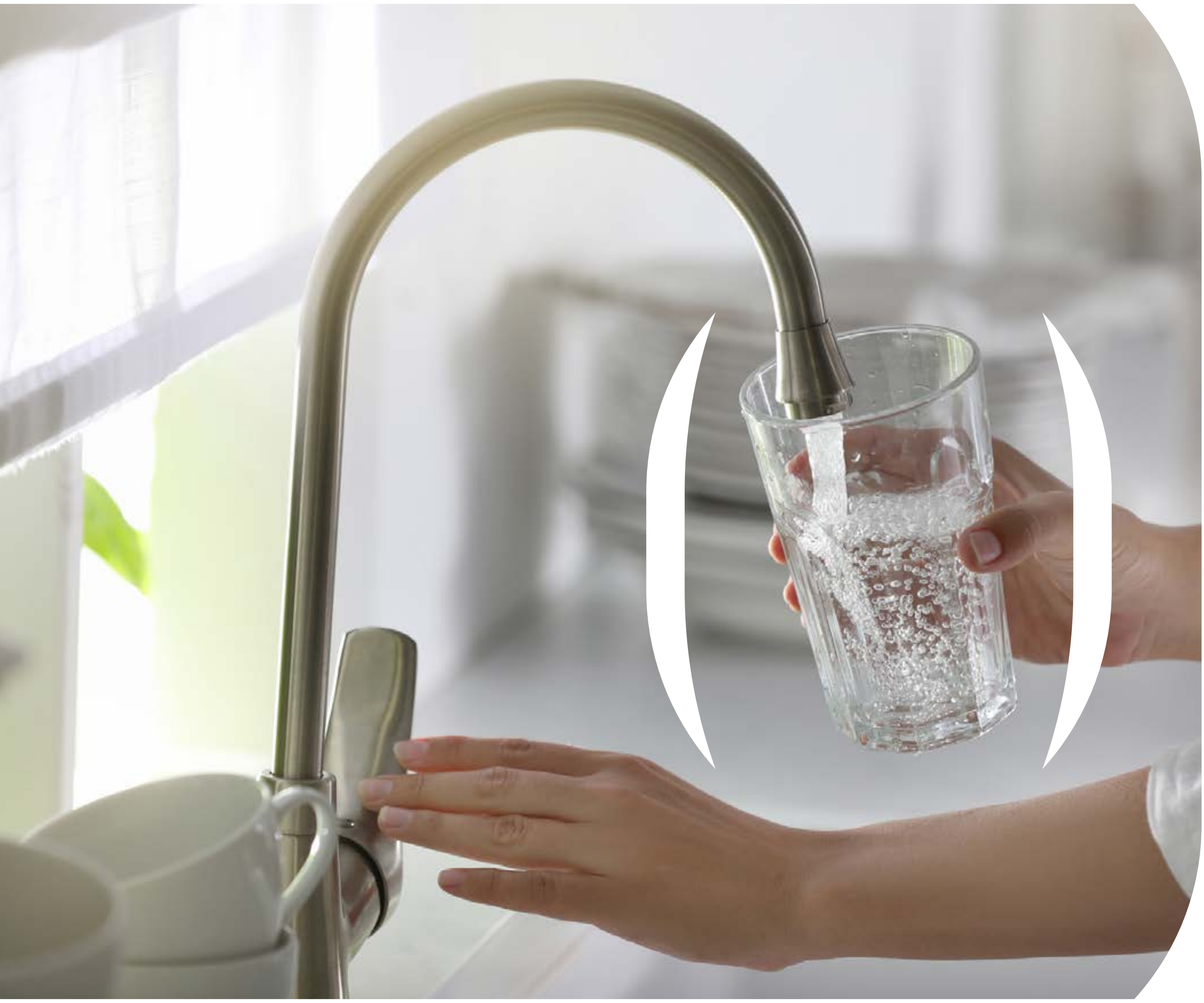

White paper

Micropollutants and PFAS: challenges and action plans for local authorities.

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Understanding the issues and the evolution of the regulatory framework

Due to their ability to accumulate in living organisms, micropollutants and per- and polyfluoroalkyl substances, more commonly known as PFAS, represent a major challenge for public water utilities. Recent news has highlighted the extent to which these harmful substances can affect the quality of drinking water.

Local authorities play a crucial role in protecting water resources, both upstream of the consumer, through the treatment and distribution of drinking water, and downstream, through the treatment of wastewater.

In 2026, legislation regarding the monitoring of drinking water will be strengthened. Local authorities will be required to add these micropollutants to their quality analyses and, in the event of non-compliance with the new standards, to implement appropriate treatments.

With this white paper, we give you the keys to best prepare for these changes.

01

Understanding micropollutants and PFAS

Micropollutants – definition

Micropollutants are unwanted substances present in the environment (air, water, soil). These substances come mainly from human activities and are called micropollutants for several reasons. They are:

- Toxic even at very low concentrations (of the order of nanograms or micrograms per liter),
- Persistent in the environment,
- Bioaccumulative in living organisms.

PFAS – definition

Per- and polyfluoroalkyl substances (PFAS) are a family of micropollutants containing between 5,000 and 10,000 different chemical compounds.

PFAS are based on a carbon-fluorine bond. Considered one of the most stable bonds in organic chemistry, it is almost indestructible, hence the nickname "Forever Chemicals".

Based on the number of carbon-fluorine bonds, they are divided into two categories:

- Long-chain PFAS,
- Short-chain PFAS.

Environmental degradation of long-chain PFAS can generate substances with shorter carbon chains, which are particularly difficult to remove.

Where do PFAS come from and what are they used for?

PFAS have been widely used since the 1950s in a multitude of industrial applications, but also in a wide variety of everyday consumer products.

These chemicals have remarkable properties and are extremely widespread. The main sources are:

Industry

- **Fire-fighting foam** used particularly in airports and military installations,
- **Textile treatment:** resistance to water, stains and flames,
- **Electronic and metal products:** resistance to heat and chemicals.

Agriculture

- **Phytosanitary products:** present in certain herbicides and pesticides.

Domestic uses

- **Non-stick coatings:** pans, pots, utensils,
- **Home and furnishings:** tablecloths and fabrics, carpets, varnishes, paints,
- **Textiles:** waterproofing of clothing,
- **Food packaging:** treatment of cardboard and packaging paper,
- **Cosmetic products:** shampoo, makeup, nail polish,
- **Household products:** carpet care, laundry detergents, dishwasher products.

Why are PFAS undesirable?

PFAS are referred to as “forever pollutants” because of their ability to accumulate in living organisms. This is called bioaccumulation. This persistent trend isn’t unique to PFAS, however, other pollutants, including certain pesticides, share this characteristic.

The French public PFAS report “*Pollution and Dependence: How to Turn Back the Clock?*”* also describes the mechanisms by which PFAS end up in the environment: “*These chemical compounds diffuse into and through all matrices, water, soil, and air, and spread over long distances (discovered in the Arctic, in polar bears and birds). They reach animals and humans and contaminate the food chain. It is established that these substances compromise the quality of natural environments*”.

* in French : « Pollution et dépendance : comment faire marche arrière ? »

What are the health risks?

PFAS are a large family whose compounds do not have the same toxicity, some of which are even biocompatible and used in medical devices.

PFOA (perfluorooctanoic acid) and PFOS (perfluorooctanesulfonic acid) are among the most toxic and widespread PFAS in our environment.

On December 1, 2023, the International Agency for Research on Cancer (IARC) classified PFOA as “carcinogenic to humans” and PFOS as a substance “possibly carcinogenic to humans.”

Micropollutants and PFAS:
Beware of the cocktail effect

The European Union (EU) has identified more than 110,000 potential micropollutants.

These varieties of chemical substances (pesticides, hydrocarbons, detergents, solvents, heavy metals, PFAS, etc.) are present almost everywhere in our environment, in varying concentrations.

Exposure to these substances, even at low concentrations, can create interactions that are difficult to predict. Although it might not be harmful when exposed to these substances individually, it can become very harmful when these substances combine with other molecules.

It is therefore essential to limit their concentration as much as possible, particularly in drinking water.

Why are we talking now about PFAS?

A progressive global awareness

The first scientific studies revealing the harmful effects of PFAS on humans and the environment date back to the 2000s.

In 2001, the Stockholm Convention was signed with the aim of eliminating or limiting persistent organic pollutants, such as PFOS. Under this convention, in 2010 some countries, such as the United States, began regulating their use.

In Europe, it was not until 2016 that monitoring, the initial regulation of PFAS, and their classification as "substances of very high concern" by the REACH directive (Registration, Evaluation, Authorization and restriction of Chemicals), began to develop.

The situation has evolved further since then. In 2020, PFOA was banned from import, export, and production. Then, in 2022, the European Union banned the production and use of PFHxS (perfluorohexanesulfonic acid), another PFAS primarily used in firefighting foams.

Recent developments in the situation in France

The detection of large-scale pollution in the French Auvergne-Rhône-Alpes region in 2022, and the publication of a collaborative investigation of the Forever Pollution Project[*1] in the newspaper "Le Monde" in 2023 accelerated the media coverage of PFAS issues and helped change the situation. This investigation revealed the contamination of more than 17,000 sites in Europe alone, as well as the correlation between industry and PFAS pollution.

The development of a French ministerial action plan on PFAS, with the aim of providing increased protection to both the population and the environment against the risks associated with these compounds was another significant development in 2023.

To better understand the levels of PFAS concentration in certain domains, controls have been put in place such as:

- Monitoring of drinking water by the ARS (Regional Health Agency in France),
- Monitoring of foodstuffs by the DRAAF (Regional Directorate for Food, Agriculture and Forestry in France),
- Monitoring of environments on industrial sites, by the DREAL (Regional Directorate for the Environment, Planning and Housing in France).

What about the implementation of the polluter is payable principle?

The "forever chemicals" law, which was adopted on February 20, 2025, by the French National Assembly, establishes a tax based on the release of PFAS into water.

This fee will be payable by installations subject to the regulations of the Classified Installations for Environmental Protection (ICPE[*2]) subject to authorization that discharge more than 100g of PFAS per year. The fee is set at €100 per 100g.

This fee will fund the budget of water agencies, which will help local authorities partially finance the elimination of PFAS.

In addition, a map of all sites emitting or formerly emitting PFAS into the environment must be made available to the public under this law.

[*1] In 2023, the Forever Pollution Project, a pioneering cross-border and interdisciplinary collaboration, brought together journalists and experts to reveal and map, for the first time, the extent of PFAS contamination in Europe. https://foreverpollution.eu/

[*2] ICPE : Installations classées pour la protection de l'environnement

02

2026: a new regulatory framework for micropollutants and PFAS

Micropollutants and PFAS in water: what regulations?

Regarding micropollutants and PFAS, aquatic environments must be closely monitored to preserve fauna and flora and limit the risk of bioaccumulation over the long term.

Concerning Water Intended for Human Consumption, monitoring of the health quality of drinking water was, until 2022, governed by Directive 98/83/EC.

Although the old "drinking water" directive made the analysis of chemical substances such as heavy metals, nitrates, nitrites, pesticides, and volatile organic compounds mandatory, it did not mention PFAS.

Directive 2020/2184 now strengthens controls, particularly by integrating PFAS.

This directive was transposed into French law with the decree of December 22, 2022 relating to the quality of water intended for human consumption.

New "drinking water" directive: towards strengthening mandatory controls from 2026

The detection of new micropollutants is not yet a strict legal obligation, but it will become so from January 2026.

Local authorities will be required to add the detection of certain PFAS to their water analyses. Other compounds will also require mandatory screening during inspections. See the table opposite for some of these compounds and their maximum permissible limits.

Substances	Parameter values
Sum of the 20 PFAS	0.10 µg/l
Bisphenol A	2.5 µg/l
Chlorates	0.25 mg/l
Chlorites	0.25 mg/l
Haloacetic acids (AHA)	60 µg/l
Microcystin-LR	1.0 µg/l
Uranium	30 µg/l

For the complete list of parameters to be included in the controls, as well as the corresponding thresholds, please see Annex I of the Directive.

In addition, the 2022 French decree also:

- Raised certain standards: antimony, boron, selenium,
- Lowered those of lead and chromium
- Specified certain parameters, such as pesticide metabolites.

The directive does not include all PFAS, but it takes into account a list of the 20 main PFAS that have been identified by the European Food Safety Authority (EFSA) and the French Agency for Food, Environmental and Occupational Health and Safety (ANSES*[1]).

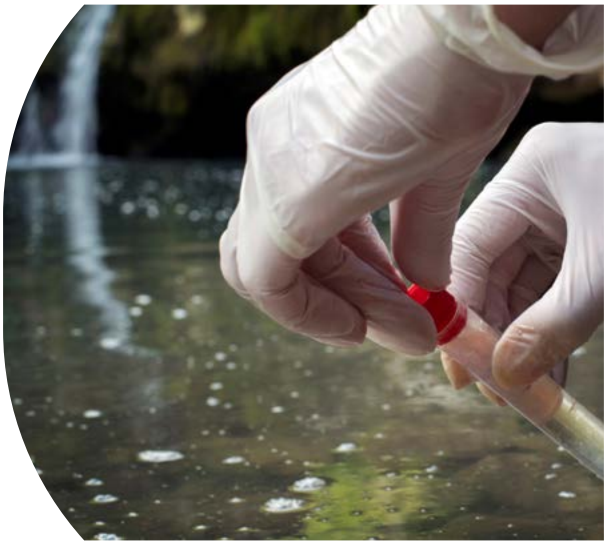
*[1] ANSES : Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail

Note: France is ahead of the new drinking water directive

Until January 2026, water suppliers are not "obliged to carry out monitoring of water intended for human consumption" for these new parameters.

However, given the cases of PFAS pollution that have been detected, particularly in Auvergne-Rhône-Alpes, **France has decided to apply, in anticipation, the European directive for the points where the presence of PFAS has already been identified by the administration.**

It is therefore strongly recommended to carry out analyses as quickly as possible, because exceeding the thresholds implies the implementation of appropriate decontamination techniques.



In addition to the analysis of micropollutants, the new directive also aims to improve health, safety, and ensure consumer confidence with:

- The implementation of a risk-based approach, via a PGSSE*[2],
- The strengthening of requirements for materials in contact with water, such as those used in the composition of pipes,
- Improving access to water for all,
- Increasing transparency on water quality for the consumer.

*[2] Water Safety Management Plan, in French : Plan de Gestion de la Sécurité Sanitaire des Eaux

03

Analyses of micropollutants and PFAS

A challenge of precision and control

Micropollutants, particularly PFAS, are closely monitored compounds due to their potential to pose a threat to human health and the environment. Their detection is complex, particularly for PFAS, which are emerging pollutants and can persist for long periods of time in the environment. Analytical methods must be precise and sophisticated to quantify these substances present at very low concentrations.

Complex methods for the analysis of these compounds

PFAS are a family of more than 10,000 different compounds. Their detection poses challenges, particularly due to the diversity of their chemical structures and their presence at very low concentrations. To identify and quantify these compounds in drinking water, laboratories use advanced techniques that must be sensitive enough to meet the quantification limits required by legislation.

There are mainly two approaches to analyzing PFAS:

1. Approach by analysis of individual compounds

- Ionic PFAS, mainly present in particulate phases, are analyzed by liquid chromatography coupled with mass spectrometry (LC-MS),
- Neutral, more volatile PFAS are analyzed by gas chromatography-mass spectrometry (GC-MS). However, these conventional techniques are not always sensitive enough to achieve the necessary detection limits in drinking water samples.

Newer techniques, such as **LC-MS/MS** (liquid chromatography-tandem mass spectrometry), can detect PFAS at trace levels (nanograms per liter). These are now the gold standard, identifying the majority of PFAS types present in a sample. While these methods are effective, laboratories continue to develop more sensitive techniques to detect a broader range of PFAS molecules.

2. Approach by index analysis

This method measures the Adsorbable Organic Fluorine (AOF) index, which estimates the total amount of PFAS in a sample. AOF combines combustion of the sample to release fluoride, followed by ion chromatography analysis to quantify the presence of fluoride. While this method is useful in some environmental regulations, it is not sensitive enough for drinking water analysis, where very low concentrations must be detected.

Targeted methods are being developed to improve the accuracy of AOF analysis, but current sensitivity limits are not yet sufficient to meet the standards required for drinking water. Furthermore, difficulties persist in controlling certain steps, such as combustion

Advanced techniques for drinking water

Laboratories use advanced analytical techniques to quantify PFAS in drinking water. These include:

- **LC-MS/MS:** several methods are used depending on the compounds, with direct injections which eliminate the extraction steps,
- **GC-MS/MS:** this method is used after liquid/liquid extraction of water into a solvent to analyze certain PFAS not detectable by LC-MS/MS.

These complex techniques ensure rigorous monitoring of PFAS in drinking water, thus making it possible to comply with legal limits for these substances, while continuing to improve analytical methods to detect even lower concentrations. The laboratories we work with use the techniques described in the table in Appendix 1.

PFAS analyses are therefore complex and require a high level of technical expertise from the R&D departments of laboratories to develop analytical techniques.

Currently, advanced laboratories can analyze the 20 PFAS of the legislation using methods that allow the quantification of parameters individually with significant sensitivities and thus meet the quality limit of the regulations in force and the quality references for raw water and water intended for human consumption of the public health code.

It is necessary to extend detection to the largest number of PFAS that could be present in water and at very low concentrations.

The analytical performance of laboratories is constantly evolving for the detection of these increasingly numerous parameters and for their quantification at increasingly lower concentrations.

Saur carries out campaigns to detect micropollutants and PFAS

1. Technical and methodological support:

Carrying out Cofrac-certified sampling and analysis campaigns,

Definition of the number of representative campaigns adapted to each drinking water production site (raw and treated water).

2. Tailor-made services:

Analysis of the 20 regulated PFAS, with the possibility of adding 27 additional PFAS (including TFA),

Taking into account the new parameters of the European directive (chlorates, chromium, metabolites, etc.).

3. Benefits of the service:

Quick results (within 30 days after shipment of samples),

Data exploitation by experts for an accurate assessment,

Submission of a detailed report.

Analysis of micropollutants by living organisms with Biosentinel by Saur®

It is possible to continuously monitor water quality by filming the behavior of small living organisms, whose movement is analyzed by Artificial Intelligence (AI). This solution makes it possible to monitor the overall ecotoxicity level of water.

Biosentinel by Saur® can be installed upstream of a water treatment plant or downstream of a wastewater treatment plant to protect the environment, it optimizes the treatment unit process by strengthening detections during pollution peaks that are difficult to detect with occasional and expensive laboratory analyses.

04

Treatment and destruction of micropollutants and PFAS: technical solutions and strategies for communities

Removing micropollutants from water is possible.

If the new regulatory thresholds are exceeded, measures must be put in place by local authorities to eliminate pollutants and bring the water into compliance.

Proven solutions exist for concentration, treatment, and destruction. Saur acts as a solutions integrator, building a tailored response and taking each factor into account: resource quality, existing infrastructure, nature of pollutants, decontamination objectives, investment capacity. Technologies can be combined to design a comprehensive, coherent treatment plant that is fully adapted to the challenges of each sector.

Conducting pilot tests helps define the best mix of technologies to adopt in terms of efficiency, sizing, sustainability and investment.

What processing and concentration technologies are available?

Several families of processes can be used for the treatment and the concentration of micropollutants in water.

Activated carbon treatment

This adsorption treatment method uses the ability of molecules to attach to a solid surface, mainly activated carbon.

This activated carbon can be in several forms: granules, microgranules or powder.

Activated carbon treatment is the simplest method for removing a large proportion of micropollutants present in water.

This is the most widely used method for capturing long- chain PFAS.

Example: Implementation of activated carbon treatment in Haute-Savoie

In spring 2022, the French government launched a regional initiative to identify industrial sites potentially affected by PFAS pollution in the Auvergne-Rhône-Alpes region.

The measurements of PFAS carried out in the aquatic environments of the Rhône-Mediterranean basin have revealed areas requiring vigilance.

Analyses carried out on four community catchments and distribution points showed significant PFOA levels.

An action plan was put in place, leading to the commissioning of a Saur mobile granular activated carbon treatment unit.

This unit was placed on the wells of the most strategic resource for the community.

Saur carries out weekly self-monitoring confirming the effectiveness of the treatments.

Ion exchange resins

The use of ion exchange resins is an innovative method for the selective adsorption of PFAS, even when they are in trace amounts.

These resins are also very effective in removing heavy metals, nitrate ions and other micropollutants, particularly VOCs.

However, in France, this technology must obtain approval from the health authorities before being used for treating Water Intended for Human Consumption.

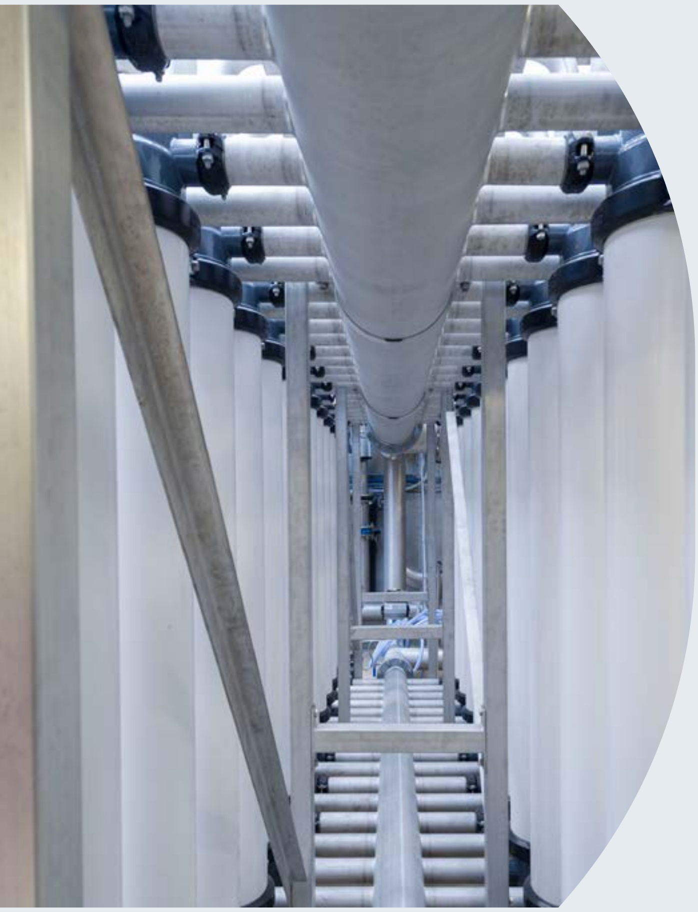
Membrane filtration

Retention by membrane filtration uses membranes to retain suspended matter to which micropollutants are attached.

Low-pressure reverse osmosis (RO), ultrafiltration (UF), and nanofiltration (NF) are three technologies that can be used for water treatment. They are used to remove particles from water.

Low-pressure reverse osmosis and nanofiltration can remove micropollutants and PFAS.

Reverse osmosis is nevertheless used as a last remedy because it is more complex to set up. .



What destruction technologies exist?

There are different PFAS destruction solutions that depend on the treatment solution and concentration used. The technology to be used for destruction may also depend on the nature of the PFAS and the solid or liquid characteristics of the substrate in which they are concentrated.

The technologies present varying degrees of complexity in terms of operability and technical sophistication.

Some must be carried out under high temperature and pressure conditions, reaching up to several hundred degrees Celsius and bar.

Among these technologies we find:

- Electro-oxidation: for destruction of PFAS in liquid streams with non-selective oxidation of any contaminant without production of solid or liquid waste,
- Supercritical oxidation of water: for destruction of PFAS in liquid and solid streams with destruction of carbon- fluorine bonds at very high temperature and pressure,
- Incineration: for the regeneration or reactivation of granular activated carbon (GAC) depending on the nature of the PFAS to be eliminated.

Combination and integration of technologies

Treatment technology alone is not enough to make water suitable for human consumption. Indeed, after sampling, whether surface or underground, water can contain a wide variety of impurities, such as organic matter, bacteria, viruses, and chemicals. A traditional treatment process consists of pretreatment, clarification, refining, filtration, and post-treatment steps.

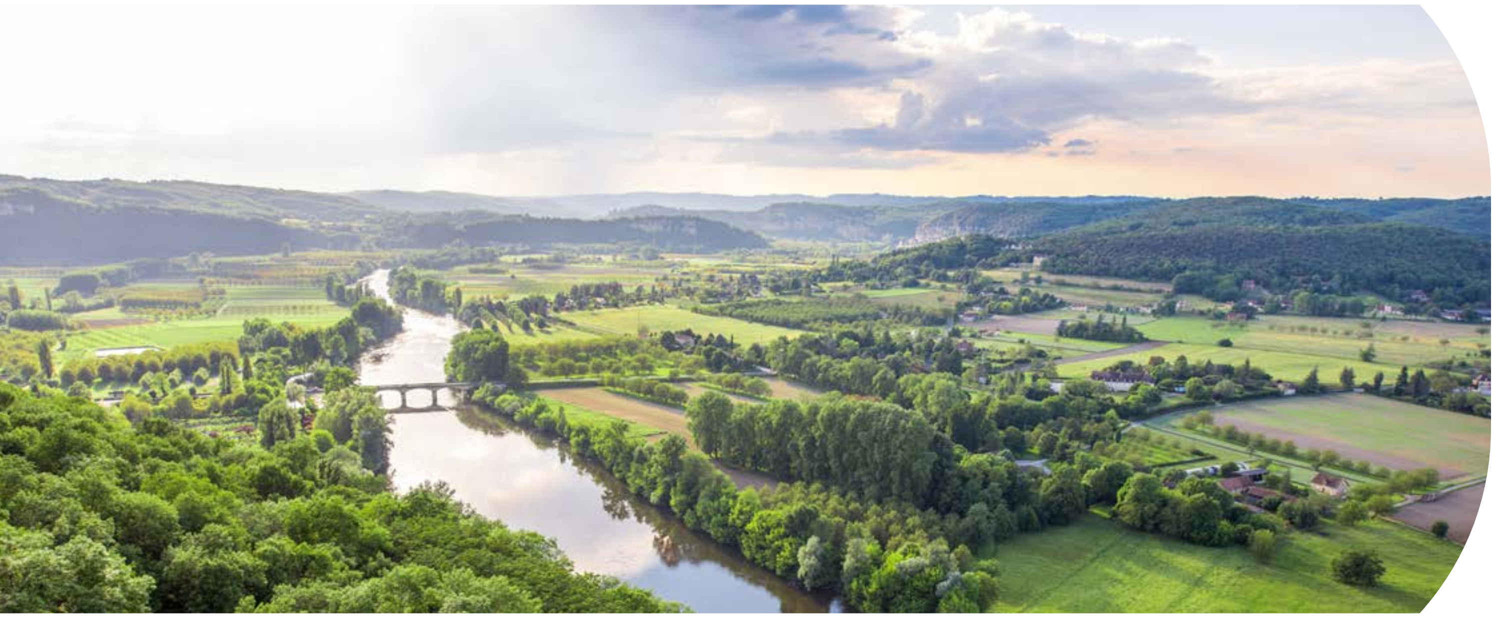
To ensure that this system is working, analyses of the incoming water, known as raw water, and the outgoing water, known as treated water, are required. In the event of non-compliance, corrective actions can be applied, such as increasing the dose of reagents or the residence time in the reactor for activated carbon treatment.

Example of a surface water treatment line

Pre-treatment	Clarification	Refining	Filtration	Post-treatment
Sieving Pre-mineralization	Coagulation Flocculation Flotation	Inter-remineralization Activated carbons Micrograins	Sand filters	Restoring balance Disinfection

Treatment / concentration technology	Additional removal	Concentration factor	Applications / when to use	Resulting concentrated PFAS material	Destruction technology
Membrane filtration Nanofiltration (NF) / Reverse Osmosis (RO)	Viruses, bacteria, color, organic matter	20	RO: when you must go to very low concentrations of PFAS, for example drinking water NF: only with long-chain PFAS	Concentrate / Brine	Electro-oxidation
Ion exchange resins	Negatively charged components (e.g., Dissolve Organic Carbon, sulphate)	1,000	All aqueous streams. All types of industry and municipal uses. Becomes more cost-effective when the use of regenerable resins is possible	Brine (when using regenerable resin) Spent resin (when using single-use resin)	Electro-oxidation Supercritical oxidation
Activated carbons	Pesticides and metabolites, others organic micropollutants and organic matter	1,000	Long-chain PFAS Current solution for most markets	Spent carbon	Supercritical oxidation* Incineration

* Or emerging technologies for the regeneration of carbon polluted by PFAS



Implementation of pilot projects

It is advisable to study the characteristics of the resource, and the nature of the micropollutants present, to determine the most effective solution to use, and to treat the pollution. A pilot project should then make it possible to compare the results of small-scale treatment systems and better design the full-scale projects and investments.

1

Defining objectives:

Identify technologies that can meet regulatory threshold

- Volume to be treated
- Water characteristics
- Regulations to meet requirements
- Time required

1 to 3 months

2

On-site installation:

Implementation on the pilot site and start of testing

- Hydraulic and electrical connections
- Start up test
- Testing procedure
  - Monitoring the overall performance of the facility
  - Monitoring the elimination performance of micropollutants of interest
  - Optimizing operating conditions to achieve performance objectives

6 to 12 months

3

Performance evaluation:

Compare the performance technologies

- Comparison of processes to identify the optimal technology
- Use of results for industrial forecasting

1 month

4

Summary and recommendations:

Proposal of the most suitable technologies for industrial implementation

- Data analysis
  - Compilation of results for each sector tested
  - Comparison of the technicality and costs of each sector
- Recommendations
  - Suggestion of the best sector for industrialization
  - Drafting and submission of a final report

Long-term strategy: limiting micropollutant emissions and treating them at the source

Removal of pollutants from water before delivering it to the consumer is necessary for health and regulatory reasons.

In the long term, however, it makes more sense to try to eliminate pollution at the source. This is what the authorities (French and European) are doing when they prohibit or restrict the use of certain compounds.

Anticipate

Plan the funding

Think about a long-term strategy and anticipate future regulations

Prevent

Treat at the source

Avoid these compounds in industries and their wastewater

Remedy

Concentrate and treat the pollution

Separate the micropollutants of drinking water

Destroy

Eliminate the pollution

Get rid of the compounds before returning to the environment

What actions can be taken to involve all the stakeholders in the territories?

- **Identify potential sources of pollutants:** establish inventories of sources of micropollutants in the territory, such as industries, farms and hospitals.
- **Establish action plans:** put in place specific plans to reduce micropollutant emissions.
- **Treat at source:** equip industries and treatment plants with solutions to eliminate these substances before they reach waterways.
- **Promote sustainable agricultural practices:** encourage farmers to use fewer pesticides and herbicides or to opt for less harmful alternatives.
- **Raise awareness and educate:** inform the public and businesses about the dangers of micropollutants and ways to reduce them.

05

Benefit from Saur's global approach

2026 Compliance Objective: Steps to Follow

1

Implement a Water Safety Management Plan

Directive 2020/2184 mandates the implementation of a WSP, which manages risks related to water quality. This plan must be tailored to your community and include measures to prevent and control micropollutants.

2

Analyzing micropollutants

From 2026, it will be mandatory to analyze micropollutants present in drinking water.

For communities, it is therefore urgent to have samples taken and analyses carried out to detect the presence of micropollutants.

This analytical work can be entrusted to laboratories approved for carrying out sampling and analyses for water health monitoring.

3

Train staff

Ensure your departments are well-trained to understand and implement new standards and procedures. This may include training on risk management, water quality monitoring, and micropollutant analysis techniques.

4

Adapting infrastructure

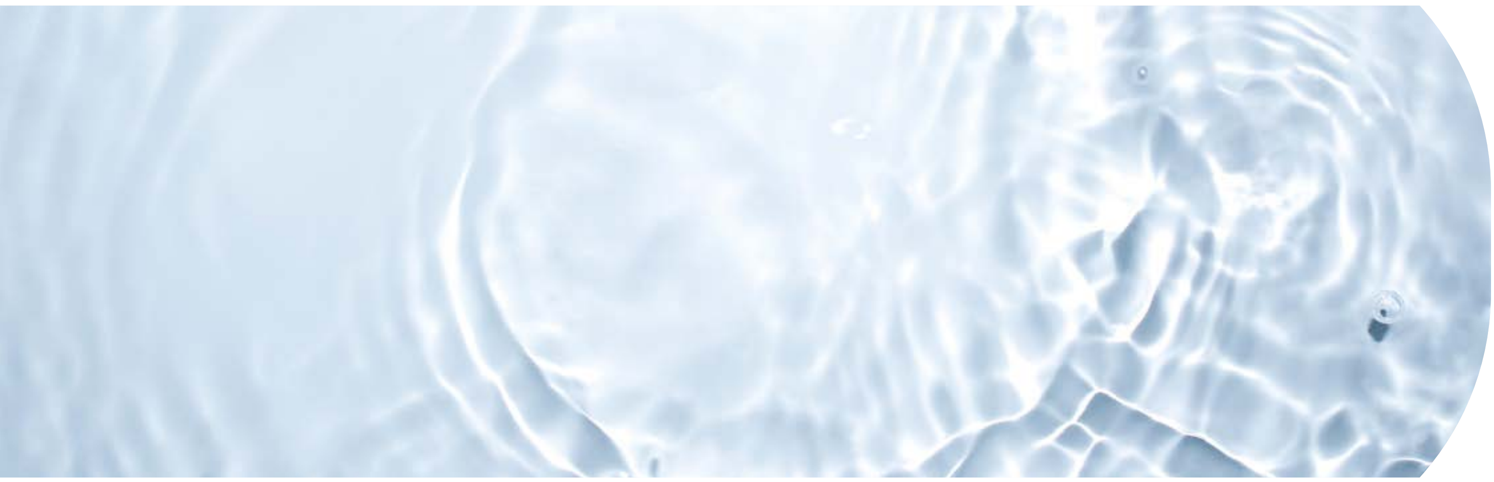
Temporary investments: use of mobile treatment units and skids for emergency compliance, guaranteeing continuity of service and water supply to the area.

Sustainable investments: consider setting up pilot tests and modernizing water treatment plants.

5

Track and document

Keep accurate documentation of all measurements taken, analyses performed, and results obtained.



Act now and get your water analyzed!

Not sure if your community is affected by a micropollutant and PFAS pollution?

In this case, the first step is to have the analyses carried out which will allow us to find out.

Although the inclusion of new parameters in analyses (PFAS, bisphenol A, chlorates, chlorites, uranium, etc.) will not be mandatory until January 2026, it is advisable to do so without delay.

Indeed, the deployment of new treatment solutions can take time, depending on the type of micropollutants or PFAS detected and their concentration.

In the event of non-compliance, the ARS will impose the implementation of binding corrective measures. In some cases, these measures may even result in the disconnection of problematic intakes.

Saur helps local authorities
in their compliance efforts

CONTACT OUR EXPERTS

Appendix: quantifiying PFAS in drinking water

PFAS parameter	Analysis technique
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	HPLC/MS/MS after direct injection
1H,1H,2H,2H-erfluoro-1-decanol (8:2 FTOH)	GC/MS/MS, LL extraction
1H,1H,2H,2H-perfluoro-1-octanol (6:2 FTOH)	GC/MS/MS, LL extraction
5H-Octafluoropentanoic acid	HPLC/MS/MS after direct injection
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTS)	HPLC/MS/MS after direct injection
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTSA)	HPLC/MS/MS after direct injection
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTS)	HPLC/MS/MS after direct injection
1H,1H,2H,2H-perfluotooctane sulfonic acid (6:2 FTSA)	HPLC/MS/MS after direct injection
2H,2H,3H,3H-perflurooctanoic acid (5:3 FTCA= FPePA)	HPLC/MS/MS after direct injection
2H-Perfluoro-2-decenoic acid (FOUAE)	HPLC/MS/MS after direct injection
3-Perfluoropropylpropanoic acid (3:3 FTCA= FPrPA)	HPLC/MS/MS after direct injection
Acid 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctanoic (6:2 FTCA)	HPLC/MS/MS after direct injection
3-Perfluoroheptyl propanoic acid (7:3 FTCA)	HPLC/MS/MS after direct injection
4,8-Dioxa-3H-perfluorononanoic acid	HPLC/MS/MS after direct injection
9-Chloro-hexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	HPLC/MS/MS after direct injection
N-ethylperfluoro-1- octanesulfonamidoacetic acid (N-ETFOSAA)	HPLC/MS/MS after direct injection
N-methylperfluoro-1- octanesulfonamidoacetic acid (N-MeFOSAA)	HPLC/MS/MS after direct injection
Pefluorooctadecanoic acid (PFODA)	HPLC/MS/MS after direct injection
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	HPLC/MS/MS after direct injection
Perfluoro(2-methyl-3-oxahexanoic) acid (HFPO-DA)	HPLC/MS/MS after direct injection
Perfluoro dodecane sulfonic acid	HPLC/MS/MS after direct injection
Perfluoro dodecanoic acid	HPLC/MS/MS after direct injection
Perfluoro n-butanoic acid	HPLC/MS/MS after direct injection

PFAS parameter	Analysis technique
Perfluoro n-heptanoic acid	HPLC/MS/MS after direct injection
Perfluoro n-hexanoic acid	HPLC/MS/MS after direct injection
Perfluoro n-nonane sulfonic acid	HPLC/MS/MS after direct injection
Perfluoro n-nonanoic acid	HPLC/MS/MS after direct injection
Perfluoro n-octanoic acid	HPLC/MS/MS after direct injection
Perfluoro n-pentanoic acid	HPLC/MS/MS after direct injection
Perfluoro n-undecanoic acid	HPLC/MS/MS after direct injection
Perfluoro octanesulfonic acid	HPLC/MS/MS after direct injection
Perfluoro tetradecanoic acid	HPLC/MS/MS after direct injection
Perfluoro tridecanesulfonic acid	HPLC/MS/MS after direct injection
Perfluoro tridecanoic acid	HPLC/MS/MS after direct injection
Perfluoro undecane sulfonic acid	HPLC/MS/MS after direct injection
Perfluoro{acetiic acid, 2-[(5-methoxy-1,3-dioxolan-4-yl)oxy]}	HPLC/MS/MS after direct injection
3,6-Perfluorodioxaheptanoic acid (NFDHA=3,6-OPFHpA)	HPLC/MS/MS after direct injection
Perfluoro-3-methoxypropanoic acid (PFMPA=PF4OPeA)	HPLC/MS/MS after direct injection
Perfluoro-4-methoxybutanoic acid (PFMBA=PF5OHxA)	HPLC/MS/MS after direct injection
Perfluorobutane sulfonic acid	HPLC/MS/MS after direct injection
Perfluorodecane sulfonic acid	HPLC/MS/MS after direct injection
Perfluorodecanoic acid	HPLC/MS/MS after direct injection
Perfluoroheptane sulfonic acid	HPLC/MS/MS after direct injection
Perfluorohexadecanoic acid (PFHxDA)	HPLC/MS/MS after direct injection
Perfluorohexane sulfonic acid	HPLC/MS/MS after direct injection
Perfluoropentane sulfonic acid	HPLC/MS/MS after direct injection
Bis(2-(perfluorooctyl)ethyl)phosphate (8:2 diPAP)	HPLC/MS/MS after direct injection
N-ethyl perfluorooctane sulfonamide (EtFOSA)	HPLC/MS/MS après injection directe
Perfluorooctane sulfonate	HPLC/MS/MS after direct injection
Perfluorooctane sulfonamide	HPLC/MS/MS after direct injection