

## OBSERVATORY ON PUBLIC WATER AND SANITATION SERVICES IN FRANCE : OVERVIEW OF THE SERVICES AND OF THEIR PERFORMANCES

### SUMMARY

JUNE 2022 EDITION - 2020 Sispea DATA

In France, cities are the competent authorities for all water and sanitation services. They may however transfer their responsibilities to intercommunal structures, i.e. groups of cities. Given the diversity of public water and sanitation services, the law on water and aquatic environments (LEMA)<sup>1</sup> entrusted the French Biodiversity Agency (OFB) (formerly Onema) with the technical management of the observatory of public drinking water and sanitation services. Launched in 2009, the observatory provides national online access ([www.services.eaufrance.fr](http://www.services.eaufrance.fr)) to data on the organisation, management and performance of public drinking water and sanitation services in France. These elements make it possible to assess the quality of the service provided to the user from an economic, technical, social and environmental point of view on an objective basis, recognised and shared by all the stakeholders in the water sector. The observatory provides also an account of the process of transferring communal competences to the intermunicipal level since 2013, through a specific indicator linked to the NOTRe law<sup>2</sup>.

In addition, the information system of water and sanitation public services (Sispea) is a tool for local authorities and their operators to manage their services, calculate their indicators, prepare their annual report on the price and quality of services (RPQS) and compare themselves to other services. It also helps to improve information for users<sup>3</sup> and the public. Finally, this system helps local authorities to meet regulatory requirements, particularly those relating to transparency and the control of leaks in drinking water networks.

The purpose of this annual summary is to present an overview of the organisation, performance and price of public water and sanitation utilities for the year 2020. It based on information entered by the authorities responsible for these services and checked by the State services. The extraction of the database was carried out on **January 31, 2022**.

<sup>1</sup> Art. L.213-2. of the environment code created by law n° 20061772 of 30 December 2006 on water and aquatic environments - art. 88-1.

<sup>2</sup> Law on the new territorial organisation of the Republic, promulgated on 7 August 2015 and published in the Journal officiel of 8 August 2015: <https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000030985460/>

<sup>3</sup> A user is a physical inhabitant served by the service.

## SAMPLE DATA

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The description of local authorities and public water and sanitation utilities in France is reliable, as the repository of public water and sanitation utilities in Sispea (Information system of water and sanitation public services) is exhaustive, with the exception of non-collective sanitation (ANC), where 5% of the municipalities (approximately 1,900) are not attached to any service, which for some of them corresponds to a failure to fill in the Sispea repository.

On the other hand, the aggregated results concerning the performance of the services (performance indicators and associated variables) are based on only part of the data. Depending on the competence studied (drinking water, collective and non-collective sanitation), the analyses based on these data represent **49 to 59% of the services, covering 78 to 84% of the population**. Even if this data coverage is relatively high, our results may face some measurement errors. For example, large services, public intermunicipal cooperation establishments (EPCIs) and delegated management services are over-represented in the sample analysed.

Although this sample characteristic has little effect at the national level, it may affect our statistical analysis at the local level (regional or departmental level) due to smaller number of observations. For example, significant inter-annual differences in price or yield on a small scale may result from a low volume of observations or poor representativity in one of the years studied.

## ORIGIN AND QUALITY OF DATA

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The vast majority of data is produced by the local authorities in charge of drinking water, collective and non-collective sanitation services. Some data (quality and protection of the water resource and compliance of wastewater treatment plants) are produced by the State (Ministries in charge of the environment and health).

These data are entered on the [www.services.eaufrance.fr](http://www.services.eaufrance.fr) website by the local authority (with restricted access), its operator or any third party mandated by it. Some of the data may also be pre-filled by the French Biodiversity Agency (data produced by the State or supplied by the delegates). The State services at departmental and regional level, which are responsible for local coordination of the observatory, update the data in the service repository before publication, assist local authorities and perform a first-level consistency check on the annual data stored in the database.

## SUMMARY

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14,211 local authorities in 2020 have drinking water and/or sanitation responsibilities in France. 26,176 services, carried by these local authorities. The majority of municipalities have transferred their water and sanitation responsibilities to intercommunal structures (EPCI), notably in application of the law on the new territorial organisation of the Republic (the recently amended "NOTRe" law<sup>4</sup>). The deadlines set for the mandatory transfer of these competences range from 2018 to 2026 depending on the type of intercommunal structures (EPCI). Since then, the "engagement and proximity" law<sup>5</sup> has opened up the possibility of a "delegation by agreement" of all or part of the water and sanitation competences of the various type of cities grouping to all or part of their member municipalities. In 2020, the rate of inter-municipal management is up significantly to 68.7% (compared to 62.2% in 2019).

The average price of water and sanitation services on January 1, 2021 was 4.30 €/m<sup>3</sup> - including charges, taxes and subscriptions<sup>6</sup> - (4.19 €/m<sup>3</sup> on January 1, 2020), for an annual reference consumption of 120 m<sup>3</sup> per household. This average price as well as its two components (drinking water and public sanitation) show a strong territorial variability : 80% of the population benefits from a drinking water price between 1.60 €/m<sup>3</sup> and 2.72 €/m<sup>3</sup> and from a public sanitation price between 1.37 €/m<sup>3</sup> and 3.05 €/m<sup>3</sup>.

Concerning the performance of drinking water services, the evaluation of losses due to leaks (1 litre out of 5 on average) remains stable. The knowledge and asset management index (ICGP), which evaluates the available information on system status and the quality of management, shows that there is ample room for progress. The knowledge and asset management index of the water and wastewater networks are assessed at 100 and 62 points respectively (out of a total of 120 points). This means that progress needs to be made on identification of maintenance operations, implementation of a multi-year schedule to renew branch lines, mains, etc. Compared to 2019, the index remains stable for drinking water and decreases by one point for collective sanitation.

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<sup>4</sup> Law n° 2015991 of 7 August 2015 on the new territorial organisation of the Republic.

<sup>5</sup> Law No. 2019-1461 of 27 December 2019 on engagement in local life and the proximity of public action.

<sup>6</sup> By convention, the representative price for year N is that in force on 1<sup>er</sup> January N+1, i.e. in this case 1<sup>er</sup> January 2021.

<sup>7</sup> Decree n° 2012-97 of 29 January 2012 relating to the definition of a detailed description of the networks of public water and sanitation services and an action plan for the reduction of water losses in the drinking water distribution network.

Compliance with the provisions of the "leakage" decree<sup>7</sup> is also continuously improving : 8% of services of drinking water utilities are non-compliant in terms of producing a detailed description of their network (10% in 2019, 9% in 2018, 11% in 2017, 13% in 2016, 15% in 2015) based on the available sample. Compliance with a "threshold" network performance <sup>[7]</sup> by local authorities has not yet been achieved for about 20% of them (same value in 2019, 18% between 2016 and 2018). Moreover, the renewal rate of drinking water networks has increased slightly since 2016 (0.59%), with an estimated rate of 0.63% in 2018, 0.66% in 2019 and 0.67% in 2020. Concerning collective sanitation, the rate of renewal of networks is slightly down with an estimate of 0.46% in 2020 whereas it was 0.47% in 2019.

## 1) OVERVIEW OF THE COMPETENCES OF LOCAL AUTHORITIES, ORGANISATION AND MANAGEMENT OF SERVICES

The number of local authorities responsible for water and sanitation is still very high, with a target of 2,500 services by 2026<sup>8</sup> :

By the end of 2019, 14,211 local authorities were managing 26 176 water, sanitation and non-collective sanitation services. Of these, two thirds are responsible for only one of the three competences and a small minority (6.3%) have all three competences.

There are more local authorities with collective sanitation competence than those with drinking water competence. Non-collective sanitation services are relatively grouped together, mainly within small cities grouping.

Finally, some authorities manage several services for the same competence, which explains why there are more services than organising authorities for each competence.

Distribution of organising authorities according to the number of competences, in 2020

Number of competences	Number of local authorities
A single competence	9 549
Two competences	3 766
The three competences	896
<b>TOTAL</b>	<b>14 211</b>

Distribution of competences depending on the services and organising authorities, in 2020

	Drinking water	Collective sanitation	Non-collective sanitation
Number of local authorities	8 205	9 443	2 121
Number of services	10 975	12 623	2 578

The majority of organising authorities is at the municipal level, particularly in collective sanitation where they represent 86% of all services. In drinking water, 59% of inter-municipal organising authorities are single-purpose inter-municipal syndicates (SIVU). It is in the area of non-collective sanitation that the inter-communal system is the most advanced (56% of EPCIs).

Distribution of the different types of public service organising authorities according to competences, in 2020

Local authorities	Drinking water	Collective sanitation	Non-collective sanitation
<b>TOTAL<sup>9</sup></b>	<b>8 205</b>	<b>9 443</b>	<b>2 121</b>
- of which municipalities	5 864	8 129	938
- of which public establishments of inter-municipal cooperation (EPCI)	2 330	1 308	1 181

<sup>8</sup> IRSTEA study 2018: Impact of the NOTRe law on the territorial organisation of public water and sanitation services (Projections and analysis of the administrative landscape).

<sup>9</sup> The total is greater than the sum of "municipalities" and "EPCIs" because "other groupings" and "unknown" authorities are not represented.

Service	Average number of users	Average number of municipalities
Drinking water	10 954	3,8
Collective sanitation	4 920	2,3
Non-collective sanitation	21 910	12,8

Approximately 9,500 municipalities are not equipped or connected to a collective sanitation system (no connection to a public sewerage system). In addition, 1,906 municipalities are not attached to a non-collective sanitation service (SPANC) in the Observatory's reference system. Of these, about 331 are not attached to any sanitation service. This pattern has two main explanations. First, the description of the SPANCs has not yet been completed in the Sispea reference system. Second, some municipalities have probably not yet undertaken the inspection mission required by the law on water and aquatic (December 31, 2012) environment<sup>10</sup>.

6,822 services are managed under a public service delegation, all competences combined (including 297 for sanitation), i.e. a quarter of the services. For drinking water, 57.6% of users are covered by a public service delegation, compared to 40% in collective sanitation and 9% in non-collective sanitation.

Finally, for drinking water and collective sanitation, the average size of a delegated service is about twice as large as that of services directly managed by the organizing authority.

	Drinking water		Collective sanitation	
	Delegated management	Direct management	Delegated management	Direct management
Services	3 413	7 300	3 112	9 196
in %	31,9%	68,1%	25%	75%
Population in %	57,6%	42,4%	40%	60%
Average size	11 081	5 808	7 808	4 154

*Note: the total number of drinking water and sanitation services is lower than that announced on page 3 because the management mode of some services was not declared*

## 2) PROGRESSION OF INTER-MUNICIPALITY

**The recently amended "NOTRe" law initiates a profound change in the organisation of local authorities in charge of water and sanitation: the exercise of water and sanitation competences will be transferred to the inter-municipal level, according to a timetable going from January 1, 2020 for bigger inter-municipal grouping ("communautés d'agglomération") to January 1, 2026 for the smallest ones ("communautés de communes").**

**The rate of inter-municipal management** reflects the proportion of municipalities that have transferred all their water and sanitation competences. This inter-municipal management rate is estimated at 68.7% in 2020. A strong evolution (+6.5 percentage points) is observed between 2019 and 2020. The progression towards intermunicipality thus seems to be accelerating (growth of +1.6 points on average between 2013 and 2019). The South-west, the North, as well as Martinique, Guadeloupe, Reunion and Mayotte are more committed to grouping local authorities than the rest of France.

<sup>10</sup> Law n° 2006-1772 of 30 December 2006 on water and aquatic environments

### 3) THE PRICE OF THE WATER SERVICE AND ITS MAIN COMPONENTS

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The average overall price of water (including taxes and charges) on January 1, 2021, based on an annual consumption of 120 m<sup>3</sup>, is 4.30 €/m<sup>3</sup> : 2.11 €/m<sup>3</sup> for drinking water and 2.19 €/m<sup>3</sup> for collective sanitation. This represents an average bill per household of 516 €/year (43 €/month or 1.89% of the average budget of a French household).

Intermediate-sized authorities (between 1,000 and 50,000 inhabitants) have the highest average price (between 4.25 € and 4.66 €/m<sup>3</sup>). On average, the price charged by the very small (less than 1,000 inhabitants) and the very large services (more than 50,000 inhabitants) are 4.07 and 4.25 €/m<sup>3</sup> respectively.

In general, the average price presented by the municipalities (3.95 €/m<sup>3</sup>) is lower than the average price presented by the EPCIs (4.35 €/m<sup>3</sup>).

Moreover, the average price presented by directly managed services (4.13 €/m<sup>3</sup>) is 5% lower than that presented by the delegated services (4.28 €/m<sup>3</sup>).

80% of the population benefits from a drinking water price of between 1.6 €/m<sup>3</sup> and 2.72 €/m<sup>3</sup> and a collective sanitation price, more dispersed, of between 1.37 €/m<sup>3</sup> and 3.05 €/m<sup>3</sup>.

The overall water price is higher in the North, North-West and South-West. In mainland France, Brittany (4.86 €/m<sup>3</sup>), Normandy (4.81 €/m<sup>3</sup>) and Hauts-de-France (4.68 €/m<sup>3</sup>) have the highest average prices and, in contrast, Provence-Alpes-Côte-D'Azur (3.69 €/m<sup>3</sup>), Occitanie (3.93 €/m<sup>3</sup>) and Grand-Est (3.96 €/m<sup>3</sup>) have the lowest average prices.

As far as Overseas are concerned, the differences are even more marked with a very high average price in Guadeloupe (6.52 €/m<sup>3</sup>), the lowest regional average price in Reunion (2.66 €/m<sup>3</sup>). Data are not available for French Guyana (collective sanitation prices) in 2020.

Many factors linked to the local context (technical complexity of the service, origin of the water, sensitivity of the receiving environment, scattering of the habitat, tourism-related demand, etc.), but also to political choices in terms of investments, management and quality of service, contribute to explaining all the price differences described above<sup>12</sup>.

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<sup>12</sup> OFB, *Panorama des services et de leur performance en 2018*, Observatoire des services publics d'eau et d'assainissement.

#### 4) SUMMARY OF 2020 DATA

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14 211 intermunicipal groups in charge of water and/or sanitation services.

26 176 water and collective sanitation services : 10 975 drinking water and 12 623 collective sanitation services

##### **Price**

Average price of water and of collective sanitation : 4,3 euros incl. VAT/m<sup>3</sup> for a consumption of 120 cubic metres

Average monthly budget for subscriber : 43 euros incl. VAT/m<sup>3</sup> for a consumption of 120 cubic metres

##### **Quality of water**

Compliance rate of samples taken from distributed water : 98,4 % for microbiology and 97,7 % for physico-chemical content.

Water resource protection improvement index : 75,6 %

##### **Quality of services**

Occurrence rate of unscheduled service interruptions for water services (for 1, 000 customers) : 2,49

Complaint rate (for 1000 customers) : 3,9 for water services and 1,9 for collective sanitation services.

##### **Infrastructure management**

Asset knowledge and management index (out of 120 points) : 100,6 points for water services and 63 points for collective sanitation services.

Average rate of network renewal : 0,67 % for water services and 0,46 % for sanitation services

Efficiency of the drinking water distribution network : 80,1 %

Leakage index : 3,2 m<sup>3</sup>/day/linear km of network

Number of collection network points requiring frequent dredging (per 100 km of network) : 5,1

Index of knowledge on discharge into the natural environment by wastewater collection network (out of 120 points) : 82

## METHODS : COLLECTION PROCESS AND ANALYSIS SAMPLE

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In this document, the figures (with the exception of those used to calculate the European compliance indicators for wastewater treatment plants, which can be downloaded from the website <http://www.assainissement.developpement-durable.gouv.fr/services.php>) come from the national observatory of public water and wastewater services, based on an extraction of the database **on January 31, 2022**. Operational since 2009, the observatory stores the data entered by the local authorities responsible for these services, as well as certain data pre-filled by the State services. The batches of data (and their description) that have enabled this document to be produced include

- for drinking water: **data from 59% of services (6,514 services provided data out of the 10,975 services in the repository), representing 84% of the population served**
- for collective sanitation: **data from 51% of the services (6,460 services provided data out of the 12,623 services in the repository), representing 82% of the population served**
- for non-collective sanitation: **data from 49% of the services (1,272 services provided data out of the 2,578 services in the repository), representing 72% of the population served**

## FOR MORE INFORMATION

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Find the data on water and sanitation utilities, as well as the full report and its annexes at: [www.services.eaufrance.fr/panorama/rapports](http://www.services.eaufrance.fr/panorama/rapports).

The datasets published by the services in the Observatory can be downloaded at <http://www.services.eaufrance.fr/donnees/telechargement>.



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