

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

SUMMARY

JUNE 2024 EDITION – 2022 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)¹ entrusted the French Biodiversity Agency (OFB) with the technical management of the observatory of public water and sanitation services. Launched in 2009, the observatory provides national online access (www.services.eaufrance.fr) to data on the organization, management and performance of these public services. These elements make it possible to assess the quality of the service provided to users from an economic, technical, social and environmental point of view on an objective basis, recognized and shared by all stakeholders in the water sector. The observatory also provides an account of the process of transferring communal competences to the intermunicipal level since 2013, through a specific indicator linked to the NOTRe law².

In addition, the information system of public water and sanitation 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 with other services. It also helps to improve information for users³ 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 organization, performance and price of public water and sanitation services in 2022. It based on information entered by the local authorities responsible for these services and checked by the State services. The extraction of the data base was carried out on **January 26, 2024**.

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¹ Art. L.213-2. of the Environment Code created by law no. 20061772 - December 30, 2006 on water and aquatic environments - art. 88-I.

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

³ A user corresponds to a physical inhabitant served by the service.

READING GRID

The description of local authorities and public water and sanitation services in France is considered reliable, as the repository in Sispea (information system of public water and sanitation services) is exhaustive, with the exception of non-collective sanitation, where 5% of municipalities (around 1,600) are not attached to any service, which for the vast majority of them corresponds to a failure to fill in the Sispea repository. In fact, some municipalities are only concerned with collective sanitation.

On the other hand, the aggregate results (national, regional, departmental or for some categories of service averages) concerning the performance of services (performance indicators and associated variables) are only based on part of the data. Depending on the authority studied (drinking water, collective and non-collective sanitation), the analyses based on these data represent **53% to 59% of services, covering 79% to 85% of the population**. Even if this data coverage is relatively high, these 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 analyzed.

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

ORIGIN AND QUALITY OF DATA

The vast majority of data is produced by the local authorities in charge of drinking water and collective and non-collective sanitation services. Some data is also produced by the State (Ministries in charge of the environment and health).

These data are entered on the 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 services repository before publication, assist local authorities and carry out a first-level consistency check on the annual data stored in the database.

SUMMARY

24,975 services, managed by 13,061 local authorities, have drinking water and/or sanitation responsibilities in France in 2022. 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 organization of the Republic (the "NOTRe" law⁴). 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" law⁵ 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 2022, the rate of inter-communal management increases slightly to 70.2% (69.6% in 2021, 68.7% in 2020).

The average price (including VAT) of water and sanitation services on January 1, 2023 was 4.52 €/m³ - including charges, taxes and subscriptions⁶ (4.34 €/m³ on January 1, 2022), for an annual reference consumption of 120m³ per household. This year marks a sharp rise of the water price, comparable to that of inflation. This average price and its two components (drinking water and collective sanitation) vary greatly from one region to another: 80% of the population benefits from a drinking water price between 1.67 €/m³ and 2.83 €/m³ and from a collective sanitation price between 1.49 €/m³ and 3.22 €/m³.

Concerning the performance of drinking water services, the evaluation of losses due to leaks (1 liter out of 5 on average) is stable, with an estimated distribution network efficiency of 81.3% in 2022. The knowledge and asset management index of the water and wastewater networks are assessed at 103 and 67 points respectively (out of a total of 120 points). Compared to 2020, the index has increased by one point for drinking water and three points for collective sanitation.

⁴ Law no. 2015991 - August 7, 2015 on the new territorial organization of the Republic.

⁵ Act no. 2019-1461 - December 27, 2019 on involvement in local life and the proximity of public action.

⁶ By convention, the representative price for year N is that in force on January 1, N+1, in this case January 1, 2023

The compliance with the provisions of the "leakage" decree⁷ is stable: 9% of services of drinking water are non-compliant in 2022 in terms of producing a detailed description of their network (9% in 2021, 10% in 2019, 15% in 2015) based on the available sample. The compliance with a "threshold" network performance by local authorities have not yet been achieved for 18% of them (a figure that has remained stable for several years). In addition, the renewal rate for drinking water networks is stable (0.65% in 2022). The renewal rate for collective sanitation networks is also stable, with an estimated 0.49% in 2022.

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

The number of local authorities responsible for water and sanitation services is still very high, with a target of 2,500 services by 2026⁸.

By the end of 2022, 13,061 local authorities were managing 24,975 water, collective and non-collective sanitation services. Of these, two-thirds (67%) are responsible for only one of the three competences, and a small minority (6%) have the three competences.

Distribution of organizing authorities by the number of competences in 2022

| Number of competences | Number of local authorities |
|-----------------------|-----------------------------|
| A single competence | 9,077 |
| Two competences | 3,645 |
| The three competences | 879 |
| TOTAL | 13,061 |

There are more local authorities with collective sanitation competence than those for drinking water competence. Non-collective sanitation services are relatively grouped together, mainly within small cities groupings. Finally, some local authorities manage several services for the same competence, which explains why there are more services than organizing authorities for each competence.

Distribution of competences depending on the services and organizing authorities in 2022

| | Drinking water | Collective sanitation | Non-collective sanitation |
|-----------------------------|----------------|-----------------------|---------------------------|
| Number of local authorities | 7,899 | 9,071 | 2,034 |
| Number of services | 10,518 | 12,043 | 2,409 |

The majority of organizing authorities is at the municipal level, particularly for collective sanitation where they represent 86% of all services. In drinking water, 56% of inter-municipal organizing authorities are single-purpose inter-municipal syndicates (SIVU). It is in the area of non-collective sanitation that inter-communal system is the most advanced (57% of EPCIs).

Distribution of the different types of public service organizing authorities, depending on competences, in 2022

| Local authorities | Drinking water | Collective sanitation | Non-collective sanitation |
|--|----------------|-----------------------|---------------------------|
| TOTAL⁹ | 7,899 | 9,071 | 2,034 |
| - of which municipalities | 5,641 | 7,786 | 967 |
| - of which public establishments of inter-municipal cooperation (EPCI) | 2,247 | 1,279 | 1,165 |

Average number of users and municipalities served by public water and sanitation services, in 2022

| Service | Average number of users | Average number of communes |
|----------------------------------|-------------------------|----------------------------|
| Drinking water | 6,350 | 4.0 |
| Collective sanitation | 5,444 | 2.3 |
| Non-collective sanitation | 24,583 | 13.9 |

Approximately 9,523 municipalities are not equipped or connected to a collective sanitation system (no connection to a public sanitation network). In addition, **1,572 municipalities are not attached to a non-collective sanitation service** in the observatory's reference system. Of these, **245 are not attached to any sanitation service**.

There are several possible explanations: the description of non-collective sanitation services has not yet been completed in the Sispea reference system, and/or some municipalities have probably not yet undertaken the task of control required on December 31, 2012 by the law on water and aquatic environments (LEMA). Some municipalities are attached to only one (or several) collective sanitation service, and the collective sanitation reference system can also be improved.

⁷ Decree no. 2012-97 - January 29, 2012 on the definition of a detailed description of public water and wastewater utility networks and an action plan to reduce water losses in the drinking water distribution network.

⁸ IRSTEA study 2018: Impact of the NOTRe law on the territorial organization of public water and wastewater services in France (Projections and analysis of the administrative landscape).

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

The majority of services are responsible for drinking water distribution, accounting for 97% of French services. 81% of services are responsible for all aspects of drinking water management. On an individual level, more than 8 out of 10 users have a single point of contact for all aspects of drinking water (83.5% of users). The majority of services are responsible for waste collection, accounting for more than 97.5% of French services. 83.8% of services are responsible for all aspects of public sanitation.

About 6,221 services are managed under a public service delegation, all competences combined (including 285 for sanitation), i.e. a quarter of the services. For drinking water, 57% of users are covered by a public service delegation, compared to 38% in collective sanitation and 10% in the non-collective sanitation. For drinking water and collective sanitation, the average size of a delegated service is about twice as large as that of a service directly managed by the organizing authority.

| | Drinking water | | Collective sanitation | |
|--------------|----------------------|-------------------|-----------------------|-------------------|
| | Delegated Management | Direct Management | Delegated Management | Direct Management |
| Services | 3,174 | 7,028 | 2,762 | 8,874 |
| in % | 31% | 69% | 24% | 76% |
| Pop. in % | 57% | 43% | 38% | 62% |
| Average size | 11,935 | 4,118 | 8,943 | 4,462 |

Note: the total number of drinking water and wastewater services is lower than that given on page 3 because the management method for certain services was not declare

Nationally, groundwater accounts for 68% of water abstraction for human consumption, based on 3,913 services covering 38.2 million inhabitants.

The average total consumption (domestic and non-domestic) per customer in France is 150m³ per year. **The average domestic consumption per inhabitant is 54.6 m³ per year.** Based on a ratio of 2.20 people per household (source: INSEE, January 1, 2018), the average consumption of a household is 120m³/year, which validates the legitimacy of the "120m³" consumption base used by INSEE (national institute of statistics and economic studies).

2) PROGRESS OF INTER-MUNICIPALITY

The recently amended "NOTRe" law (page 2) initiates a profound change in the organization 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 groupings ("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 **70.2% in 2022**. Growth has slowed over the past two years, following a sharp increase (+6.5 percentage points between 2019 and 2020).

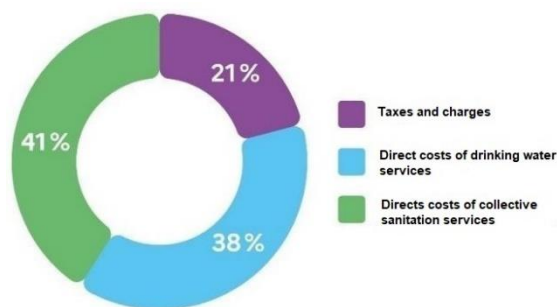
3) THE PRICE OF THE WATER SERVICE AND ITS MAIN COMPONENTS

The average overall price of water (including taxes and charges) on January 1, 2023 (price 2022), based on an annual consumption of 120m³, is 4.52 €/m³: 2.21 €/m³ for drinking water and 2.31 €/m³ for collective sanitation. This represents an average bill per household of 542.40 €/year (45.20 €/month or around 2% of the average budget of a French household).

Intermediate-sized authorities (between 1,000 and 50,000 inhabitants) have the highest average price (between 4.88 €/m³ and 4.95 €/m³). 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 4.45 €/m³ and 4.25 €/m³ respectively.

In general, the average price presented by municipalities (4.25 €/m³) is lower than the average price presented by EPCIs (4.55 €/m³). In addition, the average price presented by directly managed services (4.42 €/m³) is 4% lower than that presented by the delegated services (4.64 €/m³). 80% of the population benefits from a drinking water price between 1.67 €/m³ and 2.83 €/m³ and a collective sanitation price, more dispersed, of between 1.49 €/m³ and 3.22 €/m³.

Distribution of total water prices by direct costs and charges in 2022



Price of drinking water and collective sanitation (incl. VAT) by service size in number of inhabitants served, in 2022



For a global water bill, the fixed part represents on average 12% of it, i.e. 67 €/year, while the variable part represents 88%, i.e. 475 €/year. For this same bill, taxes and various charges for third parties (including VAT) account for 21% of the total (0.95 €/m³) and the "direct costs" of drinking water and collective sanitation are respectively estimated at 38%, or 1.72 €/m³, and 41%, or 1.85 €/m³.

Finally, in the case of delegated public services, the distribution of income "excluding taxes and charges for third parties" between the local authority and its delegate is 36% and 64% respectively for drinking water and 47% and 53% respectively for collective sanitation services.

4) SUMMARY OF 2022 DATA

Some regulatory indicators must be reported by all services. However, the average national value calculated is based on a lower number of observations, depending on the indicator:

- drinking water (DW): between 2,346 and 6,067 observations (for 10,518 services);
- collective sanitation (CS): 1,609 and 6,000 observations (for 12,043 services);
- non-collective sanitation (NCS): 1,110 observations (for 2,409 services).

| Indicator code * | | Common indicators | Unit | DW value (national average) | CS value (national average) |
|------------------|----------------|--|------------------|-----------------------------|-----------------------------|
| DW code | CS code | | | | |
| D102.0 | D204.0 | Service price per m³ | €/m ³ | 2.21 | 2.31 |
| P103.2 | P202.2 | Knowledge of the network | unit | 103 | 67 |
| P107.2 | P253.2* | Network renewal | %/year | 0.65 | 0.49 |
| P109.0 | P207.0 | Solidarity with users | €/m ³ | 0.007 | 0.004 |
| P153.2** | P256.2** | Service debt | years | 3.0 | 4.7 |
| P154.0** | P257.0** | % unpaid | % | 1.9 | 2.2 |
| P155.1** | P258.1** | Claims rate | nb/1,000 subs. | 2.9 | 1.5 |

| Indicator code * | Specific "drinking water" indicators | Unit | Value (national average) |
|------------------|---|------------------------|--------------------------|
| P101.1 | Microbiological compliance of tap water | % | 98.5 |
| P102.1 | Physico-chemical compliance of tap water | % | 98.8 |
| P104.3 | Distribution network performance | % | 81.3 |
| P105.3 | Unmetered volumes | m ³ /km/day | 3.3 |
| P106.3 | Network losses | m ³ /km/day | 3.7 |
| P108.3 | Protecting water resources | % | 77 |
| P151.1** | Water cuts | nb/1,000 subs. | 2.6 |

| Indicator code * | Specific "collective sanitation" indicators | Unit | Value (national average) |
|------------------|---|-----------------|--------------------------|
| D203.0 | Quantity of sludge evacuated | Million t. MS | 1.2 |
| P201.1 | % of subscribers served by the network | % | 96.5 |
| P206.3 | Compliance of sludge discharged | % | 99.7 |
| P251.1** | Effluent overflow at users' premises | nb/1,000 inhab. | 0.03 |
| P252.2** | Black spots on the network | nb/100 km | 4.6 |
| P254.3** | Compliance performance individual act | unit | 96.6 |
| P255.3** | Knowledge of discharges | unit | 85.8 |

| Indicator code * | Specific indicators for non-collective sanitation | Unit | Value (national average) |
|------------------|--|------|--------------------------|
| D302.0 | Implementation of non-collective sanitation | unit | 101 |
| P301.3 | Non-collective sanitation system compliance | % | 63 |

* Indicators for ALL distribution (drinking water) and collection (sanitation) services are shown in bold.

** Indicators must be filled in by services managed by local authorities with a CCSPL (advisory commission of local public services).

In red: the 'main' indicators, which are systematically studied in detail every year.

METHODS: COLLECTION PROCESS AND ANALYSIS SAMPLE

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 <https://assainissement.developpement-durable.gouv.fr/pages/data/actu.php>) come from the national observatory on public water and sanitation services, based on an extraction from the database on January 26, 2024. Launched in 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 descriptions) used to produce this document include:

- for drinking water: **data from 59% of services (6,246 services provided data out of the 10,518 services in the repository), representing 85% of the population served;**
- for collective sanitation: **data from 54% of services (6,449 services provided data out of the 12,043 services in the repository), representing 84% of the population served;**
- for non-collective sanitation: **data from 53% of services (1,272 services provided data out of the 2,049 services in the repository), representing 79% of the population served.**

FOR MORE INFORMATION

Find the data on water and sanitation services, as well as the full report and its annexes, at: www.services.eaufrance.fr/rapport-national

The datasets published by the services in the observatory can be downloaded at: www.services.eaufrance.fr/pro/telechargement

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