



REPUBLIC OF CROATIA
CROATIAN BUREAU OF STATISTICS



QUALITY REPORT FOR STATISTICAL SURVEY

Annual Survey on Public Sewage System (VOD-2K) for 2024

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0. Basic information

- Purpose, goal, and subject of the survey

The aim of the research is to collect data on waste water, waste water treatment and discharge, sewage network, wastewater treatment plants (WWTP).

- Reference period

Calendar year

- Legal acts and other agreements

[Decision on the National Classification of Activities – NKD 2007. \(OG, No. 58/07 and 72/07\)](#)

[Ordinance on the Register of Spatial Units \(OG 37/20\)](#)

[Water Act \(OG, No. 47/23\)](#)

[Regulation \(EC\) No 1893/2006 of the European Parliament and of the Council of 20 December 2006 establishing the Statistical Classification of Economic Activities NACE Rev. 2 and amending Council Regulation \(EEC\) No 3037/90 and certain EC Regulations on specific statistical domains](#)

- Classification system

National Classification of Activities 2007

- Statistical concepts and definitions

Public sewerage means the activity of collection of waste waters, their transport to a waste water treatment plant, treatment and direct or indirect discharge into surface waters, treatment of sludge generated in the process of waste water treatment, if the above is conducted through public sewerage facilities, and management of these facilities; public sewerage also includes pumping and transport of waste water from sump pits.

Waste waters are all potentially polluted industrial, sanitary, rainwater and other waters.

Treated waste waters comprise all amounts of waste waters treated by using either primary (mechanical), secondary (biological) or tertiary (combined) treatment method.

The primary treatment includes the application of physical and/or chemical processes by which at least 50% of suspended solids are removed from the waste water, while the BOD5 value decreases by as much as 20%, as compared to the BOD5 value of influent waters.

The secondary treatment includes the application of biological and/or other treatment processes by which the concentration of suspended solids and BOD5 decreases by 70% to 90% and the concentration of COD by at least 75%.

The tertiary treatment includes the application of physical and chemical, biological and other treatment processes by which the concentration of nutritious matters of influent in waste waters decreases by as much as 80%, or other pollutants, which could not be removed to that extent in the secondary treatment, are now removed as well.

Discharged waste waters consist of discharges of treated and untreated waters. The waters can be discharged into ground waters, waterflows, reservoirs, lakes and the sea.

Public sewage network is a network of enclosed public drains and sewers used either for draining of both waste and atmospheric waters together (general water sewage system), or for separate draining of waste and atmospheric waters (separation water sewage system).

Total length of the public sewage network is the length of the sewerage network of enclosed public drains and pipes for wastewater and atmospheric waters from settlements, without connections and networks within buildings.

Waste water treatment plants are devices for the treatment of waste water. They are divided to devices for the primary, secondary and tertiary treatment.

- **Statistical units**

Reporting units are public suppliers of public sewage system services. According to the Water Act (NN, No 47/23), the public supplier of sewage system services is a company in which all shares or equity shares are held by local self-government units or companies in which all shares or equity shares are held directly by local self-government units, that is, an institution founded by a local self-government unit.

- **Statistical population**

The report is filled in by legal entities and parts thereof that are registered, according to the NKD 2007 (NN, No 58/07 and 72/07), in section E Water supply; sewerage, waste management and remediation activities, class 37.00 Sewerage.

1. Relevance

1.1 Data users

Scientists, students

1.1.1 User needs

Scientists - for research, students- for thesis

1.1.2 User satisfaction

The first user satisfaction survey of the Croatian Bureau of Statistics was conducted in 2013, the second one in 2015, and the last one at the end of 2022. The survey results can be checked on the website of the Croatian Bureau of Statistics <https://dzs.gov.hr/highlighted-themes/quality/user-satisfactionsurveys/686>.

1.2. Completeness

Data are submitted to Eurostat on the basis of a gentleman's agreement. Data are collected for national and Eurostat needs.

1.2.1 Data completeness rate

Indicator for this survey is not applicable.

2. Accuracy and reliability

2.1. Sampling error

Not applicable

2.1.1 Sampling error indicators

Indicator for this survey is not applicable.

2.2. Non-sampling error

The eligibility rate is the share of eligible reporting units among all selected reporting units.

2.2.1. Coverage error

Not applicable, coverage is complete. The source for the address list of the reporting units is the Statistical Business Register. The data are also compared to the reporting units address list of the previous year.

2.2.2. Over-coverage rate

Indicator for this survey is not applicable.

2.2.3. Measurement error

Treatment includes logical and arithmetical control, and the resulting errors are phone verified at the reporting units before correction.

2.2.4. Non-response error

Reporting units are contacted by telephone if necessary.

2.2.5. Unit non-response rate

Indicator was not computed for this survey.

2.2.6. Item non-response rate

Indicator was not computed for this survey.

2.2.7. Processing error

Data that have been incorrectly entered either by the reporting unit or during the processing are verified and corrected.

2.2.8. Imputation rate

Indicator was not computed for this survey.

2.2.9. Model assumption error

Not applicable

2.3. Data revision

2.3.1. Data revision – policy

The users of statistical data are informed about revisions on the website of the Croatian Bureau of Statistics, on the link – [General Revision Policy of the CBS](#).

2.3.2. Data revision – practice

Since 2018, the Croatian Bureau of Statistics has ceased to conduct a part of the survey relating to the sewage network due to the implementation of the new methodology. The information was released in the First release, as a note.

2.3.3. Data revision – average size

Indicator for this survey is not applicable.

2.4. Seasonal adjustment

Not applicable.

3. Timeliness and Punctuality

3.1. Timeliness

T+185 days (for example, in the First release data for the year 2023 are published on 12 July 2024.).

PC-Axis database - 19.7.2024

3.1.1. Time lag – first results

Time lag - first results is: T + 6,5

3.1.2. Time lag – final results

Time lag - final results is: T + 0

3.2. Punctuality

T+0 All data were delivered on time based on the planned date of publication.

3.2.1. Punctuality – delivery and publication

Delivery and publication is: 0

4. Accessibility and clarity

Data are disseminated on paper and electronic - publication on the website of CBS in the form of first releases and PC AXIS data base.

The First release contains short methodological explanations such as source and methods of data collection, coverage and comparability, definitions and etc. Metadata are also available in the database.

4.1. News release

First Release OEN-2024-1-3 Public Sewage System, 2023

Release date: 12 July 2024

4.2. On-line database

Databases - Public Sewage System

https://web.dzs.hr/PXWeb/Menu.aspx?px_db=Okolis&px_language=en&rxid=392f9430-ecae-48b0-b88e-0baef3c9b807

4.3. Micro-data access

The conditions under which certain users can access microdata are regulated by the Ordinance on Conditions and Terms of Access and Use of Confidential Statistical Data of the Croatian Bureau of Statistics for Scientific Purposes (NN, br. 5/23).

4.4. Documentation on methodology

The basic methodological explanations are published within first release and data base.

5. Comparability over time

5.1. Asymmetry for mirror flows statistics

Not applicable.

5.2. Comparability - over time

Data series for 2001-2023 are comparable (database) and 2002-2023 (First release).

5.2.1. Length of comparable time series

Length of comparable time series is: 23

5.2.2. Reasons for break in time series

Since 2018, the Croatian Bureau of Statistics has ceased to conduct a part of the survey relating to the sewage network due to the implementation of the new methodology.

5.3. Coherence – subannual and annual statistics

Indicator for this survey is not applicable.

5.4. Coherence – national accounts

Indicator for this survey is not applicable.

5.5. Coherence – administrative sources

Indicator was not computed for this survey.

6. Cost and burden

6.1. Cost

The costs associated with the production data through material costs and employee benefits (salaries etc.)

6.2. Burden

Indicator for this survey is not computed.