

First Release

Year: LXI.

Zagreb, 12 July 2024

OEN-2024-1-3

ISSN 1334-0557



PUBLIC SEWAGE SYSTEM, 2023

In 2023, the total volume of waste waters amounted to 360 539 thousand m³, which was a increase of 1.7% compared to 2022.

Out of the total volume of waste waters, 190 081 thousand m³ were from households and economic activities (increase of 0.3%), while 170 218 thousand m³ were other waste waters (precipitations, etc.).

The volume of waste waters discharged from households decreased by 0.3%, while those from economic activities increased by 1.7%, as compared to the previous year.

In 2023, the volume of treated waste waters amounted to 304 109 thousand m³, which was 2.1% more than the total volume of treated waste waters in 2022.

The volume of untreated waste waters amounted to 56 430 thousand m³, which was 0.3% less than in the previous year.

The public sewage network in 2023 was 15 097 km long, which was 6.5% more than in 2022.

The total number of waste water treatment plants was 198 in 2023. The number of plants for all treatment methods increased, but the number of primary treatment plants increased the most, by 9.1%.

More detailed data will be available in the [database](#) on 19 July 2024.

1 SOURCE, TREATMENT AND DISCHARGE OF WASTE WATERS, 2022 AND 2023

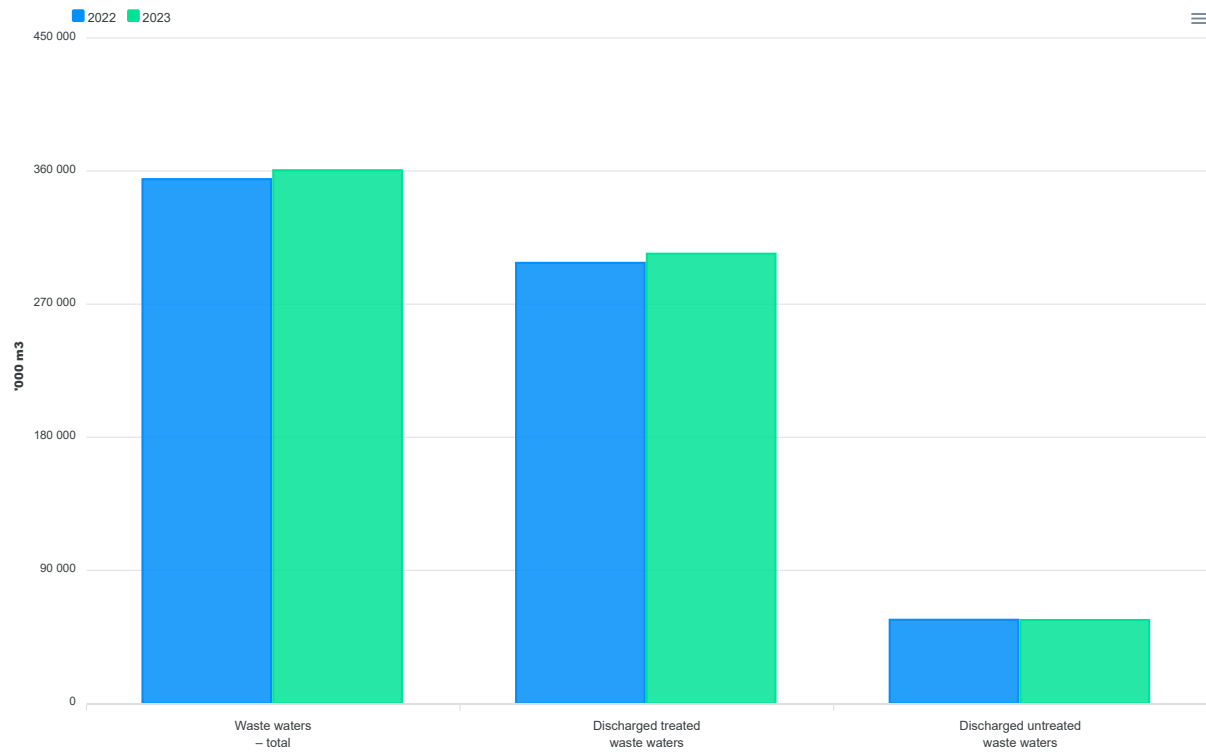
'000 m³

	2022	2023	Indices 2023 2022
Waste waters – total	354 519	360 539	101,7
From households	127 682	127 237	99,7
From economic activities	61 822	62 844	101,7
Other waters	165 015	170 218	103,2
Discharged treated waste waters – total	297 915	304 109	102,1
Primary treatment	63 064	66 534	105,5
Secondary treatment	200 854	180 331	89,8
Tertiary treatment	33 997	57 244	168,4
Discharged untreated waste waters	56 604	56 430	99,7

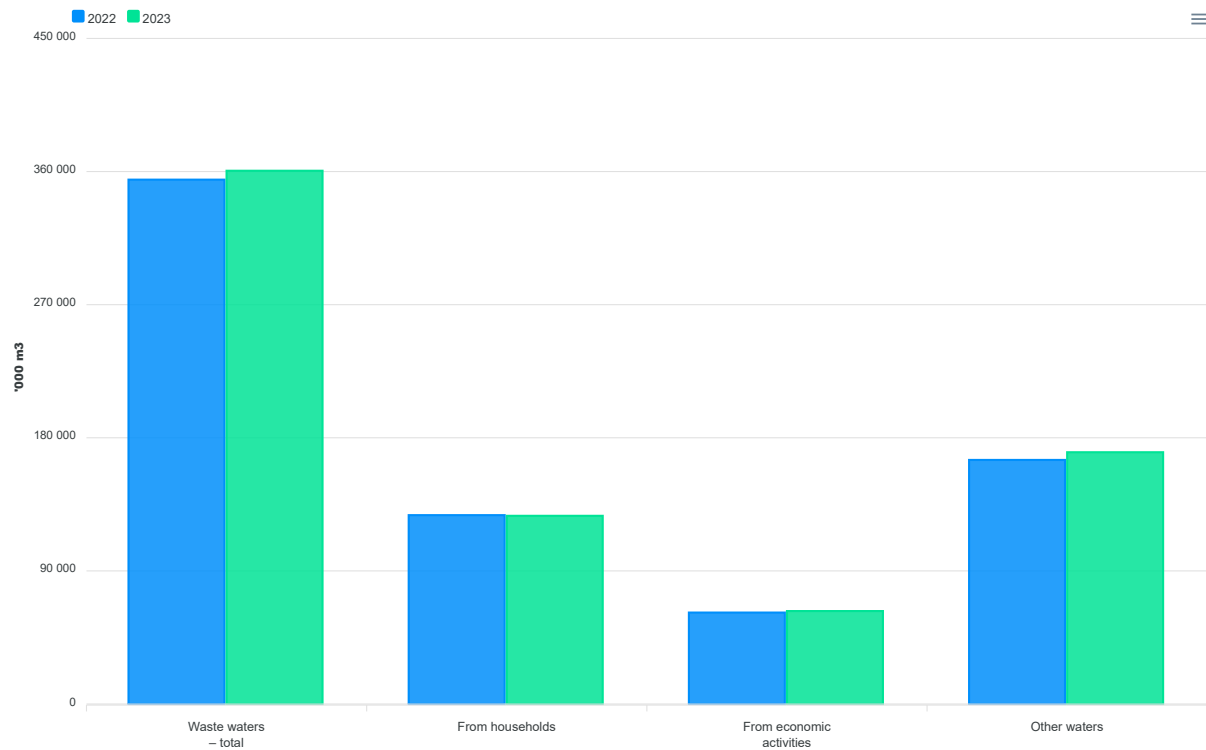
2 PUBLIC SEWAGE NETWORK AND WASTE WATER TREATMENT PLANTS, 2022 AND 2023

	2022	2023	Indices 2023 2022
Total length of public sewage network, km	14 179	15 097	106,5
Waste water treatment plants	186	198	106,5
Number of primary treatment plants	66	72	109,1
Number of secondary treatment plants	90	94	104,4
Number of tertiary treatment plants	30	32	106,7

G-1 WASTE WATERS, 2022 AND 2023



G-2 WASTE WATERS, BY ORIGIN, 2022 AND 2023



NOTES ON METHODOLOGY

Sources and methods of data collection

The data on the public sewage system are collected by using the annual statistical survey entitled the Annual Survey on Public Sewage System (VOD-2K form) on the basis of the Official Statistics Act (NN, No. 25/20).

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.

The report is filled in by legal entities and parts thereof that are registered, according to the NKD 2007 (NN, Nos 58/07 and 72/07), in section E Water supply; sewerage, waste management and remediation activities, class 37.00 Sewerage.

Coverage and comparability

The source for the address list is the Statistical Business Register.

The survey provides basic data on waste waters, their treatment and discharge as well as on the public sewerage network and waste water treatment plants.

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.

Abbreviations

BOD ₅	biochemical oxygen demand
COD	chemical oxygen demand
km	kilometre
m ³	cubic metre
NKD 2007	National Classification of Activities, 2007 version
NN	Narodne novine, official gazette of the Republic of Croatia
'000	thousand

Published by the Croatian Bureau of Statistics, Zagreb, Ilica 3, P. O. B. 80

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