DRŽAVNI ZAVOD ZA STATISTIKU
CROATIAN BUREAU OF STATISTICS

First Release

Year: LIX. Zagreb, 06 July 2022 OEN-2022-1-3

ISSN 1334-0557

PUBLIC SEWAGE SYSTEM, 2021

In 2021, the total volume of waste waters amounted to 356 547 thousand m^3, which was a negligible increase (of 0.1%) compared to 2020.

Out of the total volume of waste waters, 190 744 thousand m^3 were from households and economic activities (increase of 0.6%), while 165 803 thousand m^3 were other waste waters (precipitations, etc.).

The volume of waste waters discharged from households increased by 2.0%, while those from economic activities decreased by 2.1% compared to the previous year.

In 2021, the volume of treated waste waters amounted to 296 783 thousand m^3, which was 0.5% less than the total volume of treated waste waters in 2020.

The volume of untreated waste waters amounted to 59 764 thousand m^3, which was 3.1% more than in the previous year.

The public sewage network in 2021 was 13 664km long, which was 1.6% more than in 2020.

The total number of waste water treatment plants was 183 in 2021. The number of primary and tertiary treatment plants increased, while the number of secondary treatment plants decreased, by 4.5%.

More detailed data will be available in the database on 21 July 2022.

1 SOURCE, TREATMENT AND DISCHARGE OF WASTE WATERS, 2020 AND 2021

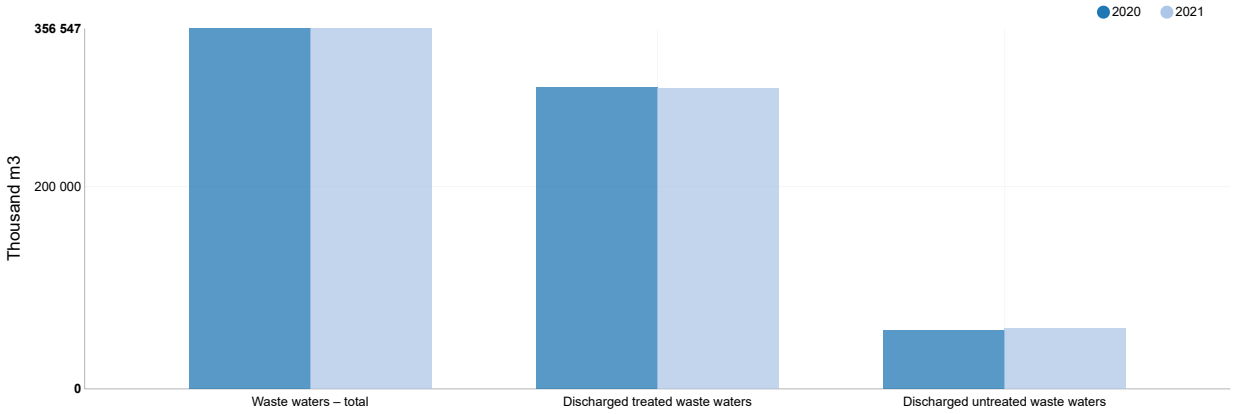
'000 m^3

	2020	2021	Indices 2021/2020
Waste waters – total	356 149	356 547	100,1
From households	126 843	129 386	102,0
From economic activities	62 692	61 358	97,9
Other waters	166 614	165 803	99,5
Discharged treated waste waters – total	298 182	296 783	99,5
Primary treatment	70 202	60 118	85,6
Secondary treatment	199 940	207 538	103,8
Tertiary treatment	28 040	29 127	103,9
Discharged untreated waste waters	57 967	59 764	103,1

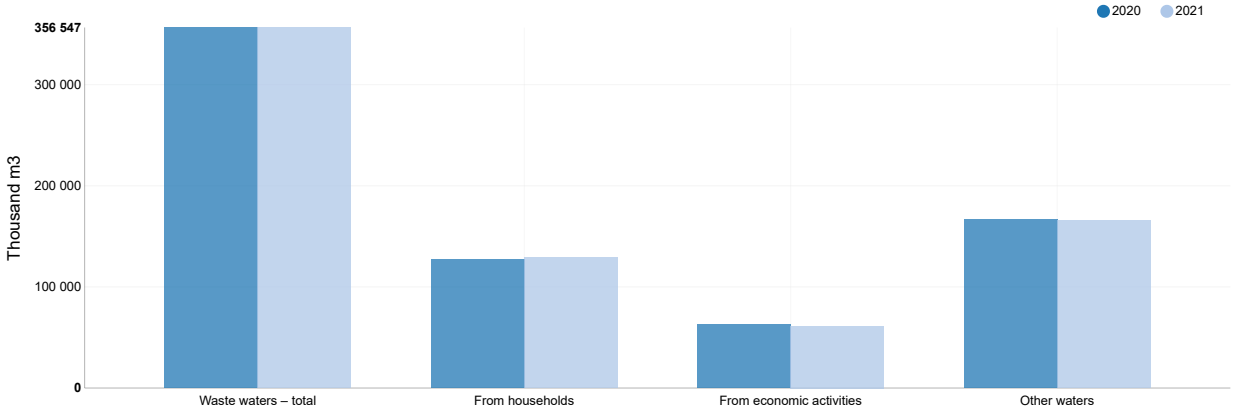
2 PUBLIC SEWAGE NETWORK AND WASTE WATER TREATMENT PLANTS, 2020 AND 2021

	2020	2021	Indices 2021/2020
Total length of public sewage network, km	13 453	13 664	101,6
Waste water treatment plants	174	183	105,2
Number of primary treatment plants	65	74	113,8
Number of secondary treatment plants	88	84	95,5
Number of tertiary treatment plants	21	25	119,0

G-1 WASTE WATERS, 2020 AND 2021



G-2 WASTE WATERS, BY ORIGIN, 2020 AND 2021



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, Nos 66/19 and 84/21), 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 BOD_5 value decreases by as much as 20%, as compared to the BOD_5 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 BOD_5 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
Phone: (+385 1) 48 06 111
Press corner: press@dzs.hr

Persons responsible:
Edita Omerzo, Director of Spatial Statistics Directorate
Lidija Brković, Director General

Prepared by:
Darko Jukić, Aleksandar Žugić, Gordana Lepčević, Željka Kovaček Čuklić and Bernarda Šimunić

Customer Relations and Data Protection Department

Information and user requests
Phone: (+385 1) 48 06 138, 48 06 154
E-mail: stat.info@dzs.hr

Subscription
Phone: (+385 1) 48 06 115
E-mail: prodaja@dzs.hr