

Code of the survey: 011020

Code of the survey: 011030

SURVEY

on drinking water supply and urban wastewater in 2017

The obligation for provide data is laid down in Article 26, and penalty provisions in Article 52 of the Law on Official Statistics ("Official Gazette of RS", No 104/2009).
Data will be used for statistical purposes only and will not be published in form of individual data. All data are subject to confidentiality.

This questionnaire can be Filled in electronically. The electronic form is available at: pod2.stat.gov.rs/unos or www.stat.gov.rs (part quick links) or www.euprava.gov.rs.

DATA ON THE REPORTING UNIT:

1. Company name _____

(name of the part of the legal person – incorporated local units)

2. Registration number _____

Sequence number of the part of the legal person - incorporated local units _____

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3. Tax identification number _____

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4. Activity _____

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5. Municipality _____

Settlement (place) _____ Telephone _____

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Address _____ Street number _____

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6. Total number of settlements with: Public water supply system _____

Urban wastewater collecting system _____

7. Type of water supply system 1. municipal/local, 2. inter-municipality _____

8. Type of wastewater collecting system 1. municipal/local, 2. inter-municipality _____

9. Method of water transport: 1. gravitation, 2. pressure, 3. combined _____

10. Method of wastewater transport: 1. gravitation, 2. pressure, 3. combination _____

Sequence number of the regional office (To be filled in by statistics) _____

Sequence number (of the form) from the address book (To be filled in by statistics) _____

Remark:

on _____ 2018

Questionnaire filled in by:

Head:

(first and last name)

(first and last name)

Contact phone:

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(call sign required)

e-mail _____

Drinking water supply for 2017 – Questionnaire VOD-2V

Table 1 Water abstraction source, abstracted (fresh water), assumed and submitted water by other water supply

Sequence number		Water abstraction source		Water quantity, thous. m ³
		Name/location	Code/registration number	
		1	2	
1	Total water ¹⁾ (2+19+20+21-22-23-24-25-26-27)	xxxxxxxxxxx	xxxxxxxxxxx	
2	Total water abstracted (3+...+18)	xxxxxxxxxxx	xxxxxxxxxxx	
3	Settlements from which territories water is abstracted	Underground water		
4				
5				
6				
7				
8				
9			Spring water	
10				
11				
12				
13				
14				
15		Rivers		
16		Accumulation		
17				
18	Lake			
19	Water assumption from other water supply			
20				
21				
22	Water submission by other water supply			
23				
24				
25				
26				
27				

¹⁾The row 1 in table 1 (total water) = Row 1 column 2 from table2 (total distributed water) + row 13 column 2 from table 2 (total water losses).

Table 2 Total distributed water and water losses

Sequence number		Number of enterprises	Water quantity, thous. m ³
		1	2
1	Total distributed water (2+3+11)		
2	Households	xxxxxxxxxxx	
3	Enterprises – total (4+5+6+7+8+9+10)		
4	In sector: Agriculture, forestry and fishing		
5	In sector: Mining		
6	In sector: Manufacturing		
7	In sector: Electricity, gas, steam and air conditioning supply		
8	In sector: Collect , treatment and disposal waste		
9	In sector: Construction		
10	Other consumers: schools, institutions, stores, hospitals, hotels, etc.		
11	Water for own consumption	xxxxxxxxxxx	
12	of which: sanitary water	xxxxxxxxxxx	
13	Total water losses at network	xxxxxxxxxxx	

Table 3 Water treatment, water supply network, users and costs for the production of drinking water

1			Number		
2	Fresh water pumps		Total operational power, kW		
3	Drinking water treatment plant		Maximum designed capacity ²⁾ , (m ³ /h or l/s)		
4			Used capacity ²⁾ , (m ³ /h or l/s)		
5	Facilities within the plant	Coagulation Chambers	Number		
6			m ³		
7		Flocculation Chambers	Number		
8			m ³		
9		Precipitators	Number		
10			m ³		
11		Ozonation ³⁾	Ozonation Chambers	Number	
12				m ³	
13			Ozone generator	Number	
14				Quantity of produced ozone, kg/h	
15		Filtration	Filters	Number	
16				m ²	
17			Filter type	(open, closed)	
18			Type of fulfill filters	(sand, active carbon)	
19		Disinfection ³⁾	UV-reactor	Total power, kW	
20			Chlorinators	Number	
21				Chlorine consumption , kg/h	
22			Deferization system	Filters number	
23				Capacity, l/s	
24		Other devices ⁴⁾		²⁾	
25			²⁾	
26		Drinking water reservoir	Number		
27			m ³		
28		Drinking water pumps	Number		
29	Total operational power, kW				
30	Length of main pipe		km		
31	Length of the distributive network		km		
32	Number of water connections pipes		xxxxxxx		
33	Number of street hydrants		xxxxxxx		
34	Number of public fountains connected to water supply network		xxxxxxx		
35	Number of households connected to water supply network		xxxxxxx		
36	Population connected to water supply network		xxxxxxx		
37	Total costs for the production of drinking water, VAT included		thous. RSD		

²⁾ Enter the production unit.

³⁾ If the process involves processing or pre-ozonization and pre-oxidation, enter the total number and capacity of the devices.

⁴⁾ Enter the exact name of the device.

Urban wastewater for 2017 – Questionnaire VOD–2K

Table 1 Wastewater discharged in water bodies

Sequence number	Water body			Wastewater discharged (thous. m ³)				total wastewater discharged
		name–location	code/registration number ⁵⁾	untreated water	treated water			
					primary treatment (physical/chemical)	secondary treatment (physical/biological)	tertiary treatment (physical/chemical/ biological)	
		1	2	3	4	5	6	7
1	Total (2+...+11)	xxxxxxxxxx	xxxxxxxxxx					
2	Country/ settlement	1						
3		2						
4		3						
5	River	1						
6		2						
7		3						
8	Accumulation	1						
9		2						
10	Lake	1						
11	Other Urban wastewater collecting system	1	xxxxxxxxxx	xxxxxxxxxx				
12	Surface runoff		xxxxxxxxxx	xxxxxxxxxx				
13	Removal from cesspool		xxxxxxxxxx	xxxxxxxxxx				

⁵⁾To be filled in by statistics.

Table 2 Devices for wastewater treatment

Sequence number	Type of treatment	Primary treatment (physical/chemical)			Secondary treatment (physical/biological)			Tertiary treatment (physical/ chemical/ biological)		
		Designed capacity of the device	Realized capacity of the device	Effluent	Designed capacity of the device	Realized capacity of the device	Effluent	Designed capacity of the device	Realized capacity of the device	Effluent
		1	2	3	4	5	6	7	8	9
1	Hydraulic load - water flow, m ³ /day									
2	E.C. ⁷⁾									
3	COD, kg O ₂ /day									
4	Suspended particles, kg O ₂ / day									
5	Nitrogen, total mg/l									
6	Phosphorus, total mg/l									

⁷⁾ Population equivalent

Table 3 Wastewater by source of generation

Sequence number		Number of enterprises	Quantities of water, thous. m ³	Of which: Treated wastewater
1	Total (2+3+11)			
2	From household	xxxxxxxxxxx		
3	Enterprises – total (4+5+6+7+8+9+10)			
4	from sector: Agriculture, forestry and fishing			
5	from sector: Mining			
6	from sector: Manufacturing			
7	from sector: Electricity, gas, steam and air conditioning supply			
8	from sector: Collect , treatment and disposal waste			
9	from sector: Construction			
10	Other consumers: schools, institutions, stores,hospitals, hotels, etc.			
11	From own consumption	xxxxxxxxxxx		

Table 4 Sewage network and costs for wastewater treatment

Sequence number		
1	Total length of the sewage network, km	
2	Length of the main collector, km	
3	Number of sewer connections	
4	Number of households connected to the wastewater collecting system	
5	Population connected to the wastewater collecting system	
6	Number of households with cesspool	
7	Total costs for wastewater treatment, VAT included, thous. RSD	

Table 6. List of all settlements covered by the public water supply and urban wastewater collecting systems; quantities of distributed and discharged water

Sequence number	Name of the settlement	Number of households conn. to public water supply	Total distributed water thous. m ³	Number of households conn. to urban wastewater coll. system	Total wastewater discharged thous. m ³	Sequence number	Name of the settlement	Number of households conn. to public water supply	Total distributed water thous. m ³	Number of households conn. to urban wastewater coll. system	Total wastewater discharged thous. m ³
1						16					
2						17					
3						18					
4						19					
5						20					
6						21					
7						22					
8						23					
9						24					
10						25					
11						26					
12						27					
13						28					
14						29					
15						30					

EXPLANATORY NOTES

On how to fill in the questionnaires for the Annual Survey on Drinking water supply, **Vod-2v** and Annual Survey on Urban wastewater, **Vod-2k**.

Vod-2V

Data for all the tables are provided for the municipality on which territory the water abstraction source is.

Table 1 - Water abstracted (fresh water), assumed and submitted water by other water supply – the name/location and code/registration number of the water abstraction source or other water supply, i.e. quantities of abstracted, assumed and submitted water are to be recorded.

Table 2 – Distributed water and losses

Column 1 – the number of enterprises to which water has been distributed or sold is to be recorded.

Column 2 – are to be recorded the quantities of water distributed to households, enterprises, registered for performing activities in the sectors: Agriculture, forestry and fishing (according to CA⁸⁾ divisions 01-03), Mining (according to CA⁸⁾ divisions 04-09), Manufacturing (according to CA⁸⁾ divisions 10-33), Electricity, gas, steam and air conditioning supply (according to CA⁸⁾ divisions 35), Collect, treatment and disposal waste (according to CA⁸⁾ divisions 38), Construction (according to CA⁸⁾ divisions 41-43) other enterprises which are engaged in service activities (according to CA⁸⁾ divisions 45-96), water consumed for own consumption (washing and maintenance of pools, pumps, filters), as well as the total water losses.

Column 5 – the average price of water including VAT (RSD / m³) distributed to consumers.

Table 3 - Water treatment, water supply network, users and costs for the production of drinking water

This table should contain data on: water treatment plant and its facilities, length of main water supply and distributive network, number of water connections pipes, number of street hydrants, public fountains, number of households and population connected to water supply network, as well as total costs for drinking water production (excluding investment costs).

Vod-2K

Table 1 - Wastewater discharged in water bodies

Primary treatment of wastewater by physical and/or chemical processes includes the collection of suspended particles and by other processes where BOD₅⁹⁾ is reduced at least by 20% before the discharge, and the total suspended particle of incoming wastewater by at least 50%.

Secondary treatment of wastewater includes the biological treatment by secondary collection which BOD₅⁹⁾ result is a reduction of at least 70% and COD¹⁰⁾ at least up to 75%.

Tertiary treatment is the continuation of the secondary treatment of nitrogen and/or phosphorous and/or of other pollutant that affects the quality and specifically water consumption: microbiological pollution, color, etc. Minimal levels of efficiency that define tertiary treatment are: organic pollution reduced at least up to 95% as for BOD₅⁹⁾ and 85% as for COD¹⁰⁾; nitrogen removal by at least 80% and microbiological removal until coliform density under 1000 in 100 ml is reached.

The wastewater treatment method shown in table 1 indicates the required type of water treatment device.

Table 2 - Devices for wastewater treatment – contain data on the number and capacity of wastewater treatment plant and quality of wastewater before and after treatment in E.C¹¹⁾ and/or m³/h.

Table 3 – Biological and chemical oxygen demand and quantity of heavy metals in wastewaters

Effluent relates to technological wastewaters that are, as treated or untreated, discharged into public sewerage systems or surface waters, as well as wastewaters from public sewerage systems that are discharged into surface waters as treated or untreated.

Column 1. Indicate quantity of effluent untreated wastewater discharged into public sewage system for BOD, COD, suspended solids in terms of kg O₂/day and quantities of heavy metals in terms of mg/l.

Column 2. Indicate quantity of effluent treated wastewater discharged into public sewage system for BOD, COD, suspended solids in terms of kg O₂/day and quantities of heavy metals in terms of mg/l.

Table 4 - Wastewater by source of generation

Column 1 the number of enterprises which discharge wastewater is to be recorded here.

Column 2 The quantities of water discharged by households, enterprises, registered for performing activities in the sectors: Agriculture, forestry and fishing (according to CA⁸⁾ divisions 01-03), Mining (according to CA⁸⁾ divisions 04-09), Manufacturing (according to CA⁸⁾ divisions 10-33), Electricity, gas, steam and air conditioning supply (according to CA⁸⁾ divisions 35), Collect, treatment and disposal waste (according to CA⁸⁾ divisions 38), Construction (according to CA⁸⁾ divisions 41-43), other enterprises which are engaged in service activities (according to CA⁸⁾ divisions 45-96), wastewater consumed for own consumption (washing and maintenance of pools, pumps, filters).

Table 5 Sewerage network and costs for wastewater treatment

This table presents data on the length of the sewerage network and main collector, number of households and population connected to the wastewater collecting system, number of households with cesspool, as well as on the total costs for wastewater treatment (including the cost of sewerage network maintenance, excluding the investment assets).

E-form of the questionnaire with instructions and methodological explanation are available on the website of the Statistical Office: www.stat.gov.rs.

⁸⁾ CA – Classification of activities

⁹⁾ BOD₅ - Biological Oxygen Demand after five days

¹⁰⁾ COD - Chemical Oxygen Demand in KMnO₄

¹¹⁾ One population equivalent (P.E.) means the organic biodegradable load having a five-day biochemical oxygen demand (BOD₅) of 60 g of oxygen per a day.