REPUBLIC OF SERBIA
Statistical Office of the Republic of Serbia

Questionnaire VOD-2V and VOD-2K

Law on Official Statistics,"Official Gazette", No 104/2009

Code of the survey: 011020
Code of the survey: 011030

SURVEY
on drinking water supply and urban wastewater in 2019

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Data will be used for statistical purposes only and will not be published in form of individual data.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 Surveys) 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 _____ | | | | |

3. Tax identification number _____ | | | | | | | | | |

4. Activity _____ | | | | |

5. Municipality _____ | | | | | |
Settlement (place) _____ Telephone _____ | | | | | |

Address _____ Street number _____

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 _____ 2020

Questionnaire filled in by:

_____
(first and last name)

Head:

_____
(first and last name)

Contact phone: | | | | | / | | | | | | | |
(call sign required)

e–mail _____

Printed in the Statistical office of the Republic of Serbia
www.stat.gov.rs

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

Sequence number			Water abstraction source		Water quantity, thous. m^3
			Name/location	Code/registration number	
			1	2	3
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	xxxxxxxxxx	
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: Constraction		
10	Other consumers: schools, institutions, stores, hospitals, hotels, etc.		
11	Water for own consumption	xxxxxxxxxx	
12	of which: sanitary water	xxxxxxxxxx	
13	Total water losses at network	xxxxxxxxxx	

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

1	Fresh water pumps			Number	
2				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			xxxxxxxx	
33	Number of street hydrants			xxxxxxxx	
34	Number of public fountains connected to water supply network			xxxxxxxx	
35	Number of households connected to water supply network			xxxxxxxx	
36	Population connected to water supply network			xxxxxxxx	
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.

Table 1 Wastewater discharged in water bodies

Sequence number	Water body				Wastewater discharged (thous. m^3)				
						treated water			
			name–location	code/registration number[5)]	untreated water	primary treatment (physical/ chemical)	secondary treatment (physical/ biological)	tertiary treatment (physical/chemical/ biological)	total wastewater discharged
			1	2	3	4	5	6	7
1	Total (2+...+11)		xxxxxxxxxx	xxxxxxxxxxx					
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	xxxxxxxxxxx					
12	Surface runoff		xxxxxxxxxx	xxxxxxxxxxx					
13	Removale from cesspool		xxxxxxxxxx	xxxxxxxxxxx					

[5)] To be filled in by statistics.

Table 2 Devices for wastewater treatment

Seque-nce 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: Constraction			
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

Sequen ce 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. m3	Sequen ce 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 submited 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 CA[8)] divisions 01-03), Mining (according to CA[8)] divisions 04-09), Manufacturing (according to CA[8)] divisions 10-33), Electricity, gas, steam and air conditioning supply (according to CA[8)] divisions 35), Collect , treatment and disposal waste (according to CA[8)] divisions 38), Construction (according to CA[8)] divisions 41-43) other enterprises which are engaged in service activities (according to CA[8)] 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 / m^3) 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 BOD_5[9)] 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 BOD_5[9)] result is a reduction of at least 70% and COD[10)] 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 BOD_5[9)] and 85% as for COD[10)]: 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.C[11)] and/or m^3/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 soils 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 soils 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 CA[8)] divisions 01-03), Mining (according to CA[8)] divisions 04-09), Manufacturing (according to CA[8)] divisions 10-33), Electricity, gas, steam and air conditioning supply (according to CA[8)] divisions 35), Collect, treatment and disposal waste (according to CA[8)] divisions 38), Construction (according to CA[8)] divisions 41-43), other enterprises which are engaged in service activities (according to CA[8)] 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 – Classificaton of activities

[9)] BOD_5 - 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 (BOD_5) of 60 g of oxygen per a day.