

e-mail

# 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

# **ANNUAL SURVEY**

on drinking water supply and urban wastewater in 2012

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Data will be used for statistical purposes only and will not be published in form of individual data.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

DATA ON THE REPORTING UNIT:			
1. Company name			
(name of the part of the I	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		<u></u>	
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	4 months allowed O to the months in all to		ĺ
8. Type of wastewater collecting sys	stem 1. municipal/local, 2. inter-municipality		
9. Method of water transport: 1. gr	avitation, 2. pressure, 3. combined		
10. Method of wastewater transport:	: 1. gravitation, 2. pressure, 3. combination		
Sequence number of the regional of	ffice		
Sequence number (of the form) from	m the address book		
Remark:			
on2013			
Questionnaire filled in by":			
Questionnaire miled in by .		Head:	
(first and last name)		(first and last na	me)
ontact phone:	/		
	(call sign required)		

Drinkina	water	supply	for	2012 -	Ouesti	onnaire	VOD	-2\
DHIINIII	water	SUDDIV	101	<b>2012</b> -	• นนษอแ	ullialie	V U U	-Z V

Municipality in which the water body is located

- 1	- 1	1	1	

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

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

<sup>1)</sup> The row 1 in table 1 (total water) = Row 1 from table2 (total distributed water) + row 9 from table 2 (total water losses).

# **Table 2 Water distribution and losses**

. ubio 2	Trator diotribution and 100000			
Sequence number		Number of enterprises	Water quantity, thous. m <sup>3</sup>	Average price of water distributed with VAT, in RSD / m <sup>3</sup>
		1	2	3
1	Total distributed water (2+7+8)			xxxxxxxxxx
2	Total water sold to: (3+4+5+6)			xxxxxxxxxx
3	Households	xxxxxxxxxx		
4	Enterprises dealing with: agriculture, forestry and fishing			
5	Industry enterprises			
6	Other consumers: schools, institutions, stores, hospitals, hotels, etc.			
7	Water for own consumption	xxxxxxxxxx		xxxxxxxxxx
8	of which: sanitary water	xxxxxxxxx		XXXXXXXXXX
9	Total water losses	xxxxxxxxxx		XXXXXXXXXX

T able	3 wate	er treatr	nent, water supply network, u		tion of drinking water
1 2	Fresh water pumps		ps	Number Total operational power, kW	
				Maximum designed capacity <sup>2)</sup> ,	
3	Drinkii	rinking water treatment plant		(m³/h or l/s)	
4				Used capacity <sup>2)</sup> , (m <sup>3</sup> /h or l/s)	
5				Number	
6		Coagulati	ion Chambers	m <sup>3</sup>	
7				Number	
8		Flocculat	ion Chambers	m <sup>3</sup>	
9				Number	
10		Precipitat	ors	m <sup>3</sup>	
11		(c)		Number	
12		tion	Ozonation Chambers	m <sup>3</sup>	
13		Ozonation <sup>3)</sup>		Number	
14	lant	OZ	Ozone generator	Quantity of produced ozone, kg/h	
15	he p			Number	
16	nin t	tion	Filters	m²	
17	witl	Filtration	Filter type	(open, closed)	
18	Facilities within the plant	ш.	Type of fulfill filters	(sand, active carbon)	
19	Faci		UV-reactor	Total power, kW	
20	1	on <sup>3)</sup>		Number	
21		Disinfection <sup>3)</sup>	Chlorinators	Chlorine consumption , kg/h	
22		Jisin		Filters number	
23			Deferization system	Capacity, I/s	
24		Other dev	vices <sup>4)</sup>	2)	
25	1			2)	
26	1			Number	
27		יווועוון אוווען linking א	water reservoir	m <sup>3</sup>	
28		Drinking	water pumps	Number	
29		_		Total operational power, kW	
		of main p		km	
			tributive network	km	
			connections pipes	XXXXXXXX	
		er of street	<u> </u>	XXXXXXXX	
34	Numbe networ		fountains connected to water supply	XXXXXXXX	
35	Numbe network		cholds connected to water supply	xxxxxxx	
36	Total c		e production of drinking water, VAT	thous. RSD	

<sup>&</sup>lt;sup>2)</sup> Enter the production unit.
<sup>3)</sup> If the process involves processing or pre-ozonization and pre-oxidation, enter the total number and capacity of the devices.
<sup>4)</sup> Enter the exact name of the device.

Municipality in which the water treatment plant is located
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Table 1 Was	stewater	discharged	lin	water	bodies
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		\/\/a-	ter body			Wast	ewater discharge	d <sup>6)</sup> (thous. m <sup>3</sup> )	
Sequen		vva	lei body		treated water				
ce number			name-locat ion	code/registrat ion number <sup>5)</sup>	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)		xxxxxxxxx	xxxxxxxxxx					
2		1							
3	Country/	2							
4	Country/ settlement	3							
5		1							
6	River	2							
7	1	3							
8	Assumulation	1							
9	Accumulation	2							
10	Lake								
11	Other Urban wastewater collecting system								

# **Table 2 Devices for wastewater treatment**

Sequen ce	Type of treatment	Number of devices	Projected capacities,		Treated capacities,		Effluent, BOD, O <sub>2</sub> /day	
number			E.C. <sup>7)</sup>	m³/h	E.C. <sup>7)</sup>	m³/h	E.C. <sup>7)</sup>	m <sup>3</sup> /h
1	Primary treatment (physical-chemical process)							
2	Secondary treatment (physical-biological process)							
3	Tertiary treatment (physical-chemical-biological process)							

<sup>7)</sup> Population equivalent

# Table 3 Wastewater by source of generation

	o reaction and course of goneration		
Sequen ce number		Number of enterprises	Quantities of water, thous. m <sup>3</sup>
1	Total (2+3+4+5+6)		
2	From household	xxxxxxxxx	
3	From enterprises dealing with: agriculture, forestry and fishing		
4	From industry enterprises		
5	From other consumer: schools, institutions, stores, hospitals, hotels, etc.		
6	From own consumption	xxxxxxxxx	

# 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	Total costs for wastewater treatment, VAT included, thous. RSD	

<sup>&</sup>lt;sup>5)</sup>To be filled in by statistics.
<sup>6)</sup>Enter the wastewater quantities without precipitation (rainfall) sewage.

# List of all settlements covered by the public water supply and urban wastewater collecting systems – Put (+) for the settlements having a water supply system (2V) and urban wastewater collecting system (2K)

Sequen ce number	Name of the settlement	Number of households conn. to Public water supply	Number of households conn. to urban wastewater coll. system	Sequen ce number	Name of the settlement	Number of households conn. to Public water supply	Number of households conn. to urban wastewater coll. system	Sequen ce number	Name of the settlement	Number of households conn. to Public water supply	Number of households conn. to urban wastewater coll. system
1				16				31			
2				17				32			
3				18				33			
4				19				34			
5				20				35			
6				21				36			
7				22				37			
8				23				38			
9				24				39			
10				25				40	_		
11				26				41	_		
12				27				42			
13				28				43			
14				29				44			
15				30				45			

#### **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 sector Agriculture, forestry and fishing (according to CA<sup>8)</sup> divisions 01-03), Industry (according to CA<sup>8)</sup> divisions 10-33), other enterprises which are engaged in service activities (according to CA<sup>8)</sup> divisions 45-96), water consumed for own consumption (washing and maintenance of pools, pumps, filters), quantity of unpaid water, as well as the total water losses.

Column 3 – 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 connected to water supply network, as well as total costs for drinking water production (excluding investment costs).

# Vod-2K

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

#### 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  $HOD^{10)}$  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<sub>5</sub>9) and 85% as for HOD<sup>10</sup>: 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<sup>11</sup>) and/or m<sup>3</sup>/h.

# Table 3 - 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 sector Agriculture, forestry and fishing (according to CA CA<sup>8)</sup> divisions 01-03), Industry (according to CA<sup>8)</sup> divisions 10-33), other enterprises which are engaged in service activities (according to CA<sup>8)</sup> divisions 45-96), wastewater consumed for own consumption (washing and maintenance of pools, pumps, filters).

# Table 4 Sewerage network and costs for wastewater treatment

This table presents data on the length of the sewerage network and main collector, number of households connected to the wastewater collecting system, 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.

<sup>8)</sup> CA – Classificaton of activities

<sup>9)</sup> BOD<sub>5</sub> - Biological Oxygen Demand after five days

<sup>10)</sup> COD - Chemical Oxygen Demand in KMnO4

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.