

Questionnaire: VOD-1

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

Code of the survey: 011010

# SURVEY ON WATER USE AND PROTECTION AGAINST POLLUTION FOR 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Data will be used for statistical purposes only and will not be published in form of individual data.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:  $\frac{\text{pod2.stat.gov.rs/unos}}{\text{(part Surveys) or }} \text{ or } \frac{\text{www.stat.gov.rs}}{\text{www.euprava.gov.rs.}}$ 

	Company name	-											
	(name of the legal person – local incorporated unit)	_											
2.	Registration number	-											
	Sequence number of the part of the legal person - local incorporated unit	-											
3.	Tax identification number												
4.	Activity	_											
5.	Municipality	-											
	Settlement Phone number	_											L
	Address Street number	_											
	Sequence number of the regional office												
	Sequence number of the questionnaire from the address book												
												_	
Rem	arks:												
Rem	arks:												
Rem	arks:												
	arks: 2020												
					ŀ	Hea	ad	l:					
	2020			(firs	h .t ar				ame	e)			
	2020 Filled in by:			(firs					ame	e)			

Table 1. Water abstraction and supply in 2019

			Name of the settlement where the water abstraction source is /name of the river, basin or public utilities company	Registration number of the settlement/public utilities company or code of the rivers/basins (to be filled by statistics)	Abstracted water (thous. m³)
			1	2	3
	S	Underground waters			
1	Own abstractions	Spring waters			
l "	O <sub>v</sub> ostra	From rivers			
	a	From basins			
2. From public water supply		olic water supply			
Tota	l abstra	cted water quantities	XXX	XXX	

Note: In abstracted water from public water supply is necessary to include only water abstracted from public water supply system.

Table 2. Water use, thous. m³

		Cooling waters					sed in the n process	Sanitary	Use for other purposes (transport of	
		For electricity generation	Others	Of which: Evaporated	Flowing waters in hydropower plants	Total	Of which: incorporated in the product	waters (for drinking and personal hygiene)	raw materials, washing and maintenance of devices and production sections)	Total (1+2+4+5+7+8)
		1	2	3	4	5	6	7	8	9
tion	Underground waters				xxx					
abstraction	Spring waters				xxx					
Own 8	From rivers									
<u>+</u>	From basins									
wate	rom public er supply	xxx			XXX					
	I abstracted er quantities									

Table 3. Wastewater discharge, thous. m³

		Name of the settlement Registration number of			Wa					
		where the water	the settlement/p	Non treated			Treated			
		abstraction source is /name of the river, basin or public utilities company	ublic utilities company or code of the watercourse/ accumulatio n (to be filled by statistics)	Total	Of which: For cooling	Primary treatment (physical/ chemical)	Secondary treatment (physical/biolo gical)	Tertiary (physical/ chemical/ biological)	Surface runoff	Total (3+5+6+7)
		1	2	3	4	5	6	7	8	9
Own water body	In the country (lagoons and septic tanks)									
6	In rivers									
	In basins									
	oublic werage system									
	discharged ewater	xxx	xxx							

**Table 4. Wastewater treatment** 

	wastewater treatment	Primary treatment <sup>1)</sup> (physical/chemical)	Secondary treatment <sup>2)</sup> (physical/biological)	Tertiary treatment <sup>3)</sup> (physical/ chemical/ biological)
		1	2	3
y of	Hydraulic load - water flow, m³/day			
acit	BOD₅, kg O₂/day			
cap	COD, kg O <sub>2</sub> /day			
Designed capacity of the device	Suspended particles, kg O <sub>2</sub> / day			
esić	Nitrogen, total mg/l			
٥	Phosphorus, total mg/l			
ıf the	Hydraulic load - water flow, m³/day			
ŝ	BOD₅, kg O₂/day			
aci	COD, kg O <sub>2</sub> /day			
Realized capacity of the device	Suspended particles, kg O <sub>2</sub> / day			
aliz	Nitrogen, total mg/l			
Š	Phosphorus, total mg/l			
	Hydraulic load - water flow, m³/day			
۔ ا	BOD₅, kg O₂/day			
rei	COD, kg O <sub>2</sub> /day			
Effluent	Suspended particles, kg O <sub>2</sub> / day			
	Nitrogen, total mg/l			
	Phosphorus, total mg/l			

<sup>1)</sup> Primary treatment of waste waters by physical and/or chemical procedure includes the collection of suspended particles, and other processes in which BOD is reduced to at least 20% before being discharged. It also covers the total suspended particles of incoming wastewaters reduced to at least 50%.

# If treated wastewaters are reused, enter the quantities in table 5.

Table 5. Reused water, thous m<sup>3</sup>

•	
Purpose	Reused water
Cooling waters	
For sanitary purposes	
Transport of raw materials	
Washing and maintenance of devices and production sections	
Given / Sell to other	
Other (specify)	
Total	

<sup>&</sup>lt;sup>2)</sup> Secondary treatment of wastewaters include biological treatment with secondary collection or by other by other processes, which result as to COD is a reduction of at least 70% and as to COD a reduction of at least under 75%.

<sup>&</sup>lt;sup>3)</sup> **Tertiary treatment** is the next wastewater treatment process after the secondary treatment of nitrogen and/or phosphorous and/or any other pollutant affecting the quality and specifically the use of water: microbiological pollution reduced up to at least 95% for BOD and 85% for COD, being: at least 70% nitrogen removal, at least 80% phosphorous removal and microbiological removal until a coliform density of 1000 in 100 ml is reached.

## INSTRUCTION for completing questionnaire VOD-1

The questionnaire VOD-1 is to be filled in by all legal entities which abstract, use and discharge water.

## **TABLE 1. WATER ABSTRACTION AND SUPPLY**

ROW 1. Own water abstraction source owned by the enterprise or the local incorporated units which fill in the questionnaire.

ROW 2. Data on public water supply system and total quantities of water bought from public water supply system are to be recorded.

**Total quantities of abstracted water** are obtained by adding up the quantities of waters from own abstraction source and from public water supply system.

**COLUMN 1.** Indicate the name of the settlement on which territory the water abstraction source for underground/or spring waters is located; the name of the river and basin from which water is abstracted; the name of the public water supply system from which water is purchased.

**COLUMN 2**. – **To be filled in by Statistics**: the registration number of the settlement on which territory the water abstraction source is located; the code of the river and/or basin; the registration number of the public water supply system from which water has been purchased.

COLUMN 3. Indicate the total quantities of water abstracted or purchased by the enterprise.

#### TABLE 2. WATER USE

Water quantities abstracted from own abstraction source or purchased from the public water supply system are to be indicated according to their end-use as:

COLUMN 1. Cooling waters in electricity generation

COLUMN 2. Cooling waters in used in section of Manufacturing

**COLUMN 3**. Evaporated water

**COLUMN 4**. Flowing waters in hydropower plants.

COLUMN 5. Waters used in the process of production.

**COLUMN 6.** Waters in the process of industry incorporated in the product (e.g. food and beverage production, various acids production, as well as fillers in wood industry, etc.).

COLUMN 7. Waters for sanitary purposes (for hand washing, bathing, food preparation, etc.).

**COLUMN 8.** Water used for other purposes (e.g. washing and maintenance of production sections and devices, transport of raw materials, etc.).

COLUMN 9. The total quantities of wastewaters as the sum of columns 1, 2, 4, 5, 7 and 8 are to be indicated.

## **TABLE 3. WASTEWATER DISCHARGE**

Wastewaters are waters which after being treated are taken to the treated plants or have direct discharge in recipient (earth, surface water). Flowing waters in hydropower plans and cooling waters are not considered wastewaters.

Wastewater discharge in own water body implies direct discharge through own sewerage/water supply network.

**COLUMN 1.** Indicate the name of the settlement on which territory the water body is located, the name of the river or basin in which water is discharges and the name of the public enterprise in which sewerage wastewaters are discharged.

**COLUMN 2.** To be filled in by Statistics: Indicate the registration number of the settlement on which territory wastewaters are discharged, the code of the river/basin from the code list, and the registration number of the public utilities enterprise in which sewerage network wastewaters are discharged.

COLUMN 3. Indicate the quantity of non treated wastewaters discharged in the water body.

**COLUMN 4.** Indicate the quantity of discharged cooling water.

**COLUMN 5, 6 and 7** Indicate the quantity of treated wastewaters discharged in the water body according to the type of treatment used (primary, secondary and/or tertiary).

**COLUMN 8.** Indicate the quantity of discharged surface runoff.

COLUMN 9. Indicate the total quantities of discharged wastewaters (the sum of columns 3, 5, 6, and 7)

## **TABLE 4. WASTEWATER TREATMENT**

Indicate the type of device used for treatment (design or realized), effluent and data on quality of wastewater. The type of the device used must correspond to the wastewaters treatment process in table 3.

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.

NOTE below is to indicate the name of institution that performed measuring.

## **TABLE 5. REUSED WATER**

Indicate total quantities of reused waters that were treated by wastewater treatments and were reused for: cooling, sanitary purposes, transport of raw materials, washing and maintenance of devices and production sections, for other purposes (e.g. irrigation, in agriculture) or that are being given or sold, and that were afterwards discharged into underground or surface watercourses. Wastewaters discharged in watercourses and re-abstracted, as well as used waters (used by other reporting unit) from the same watercourse are not to be taken as reused waters.

Electronic form of the questionnaire and methodological explanation are available on the website of the Statistical Office of the Republic of Serbia: www.stat.gov.rs.