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**Water use and protection against pollution in the Republic of Serbia, 2012**

**– Preliminary results –**

The data represent the preliminary results of the Survey on water use and protection against pollution in the Republic of Serbia in 2012. The tables present data on abstracted, used, discharged, reused water from industry as well as water losses.

In 2012, water abstraction was by 9.5% increased relative to 2011, whereof, 7.1% more ground and spring water was abstracted and 9.5% more surface water.

Starting from 1999 the Statistical Office of the Republic of Serbia has not at disposal and may not provide available certain data relative to AP Kosovo and Metohia and therefore these data are not included in the coverage

for the Republic of Serbia (total).

**1. Abstracted, used, discharged, reused water from industry and water losses from industry, 2010–2012**

**Republic of Serbia mill. m3**

|  |  |  |  |
| --- | --- | --- | --- |
|  | 2010 | 2011 | 2012 |
|  |  |  |  |
| **Abstracted water1)** | **232 257** | **155 904** | **170 698** |
| From public water supply | 18 | 19 | 20 |
| From self-supply | 232 239 | 155 885 | 170 678 |
| From ground and spring water | 31 | 28 | 30 |
| From surface water | 232 208 | 155 857 | 170 648 |
| **Water losses** | **-** | **-** | **2** |
| **Water use** | **232 257** | **155 904** | **170 696** |
| For production | 232 247 | 155 893 | 170 684 |
| Flowing water in hydropower plants | 229 114 | 152 423 | 167 630 |
| For cooling purposes2) | 3 032 | 3 368 | 2 951 |
| Recirculated water | - | - | 2 |
| Water in technological process | 48 | 48 | 52 |
| As a raw material | 10 | 10 | 10 |
| For other purposes | 53 | 55 | 51 |
| For sanitary use | 10 | 11 | 12 |
| **Discharged water3)** | **3 134** | **3 446** | **3 046** |
| Wastewater | 102 | 78 | 95 |
| Cooling water | 3 032 | 3 368 | 2 951 |
| **Treated water** | **165** | **136** | **119** |
| Reused water | - | - | 1 |

1) Water used for hydropower plants is included.

2) Included are all waters for cooling purposes in electricity production and other technological processes.

3) Water used for hydropower plants is excluded.

Of the total 3 067 446 thous. m3 of abstracted waters, 99.4% are from self-supply (surface water - 98.4%, ground water - 1.0%) and 0.6% is from public water supply.

The following divisions are particularly marked: Electricity, gas, steam and air conditioning supply, Manufacture of basic metals, Manufacture of food products and Manufacture of chemicals and chemical products that abstract and use 98.6% of the total water quantity.

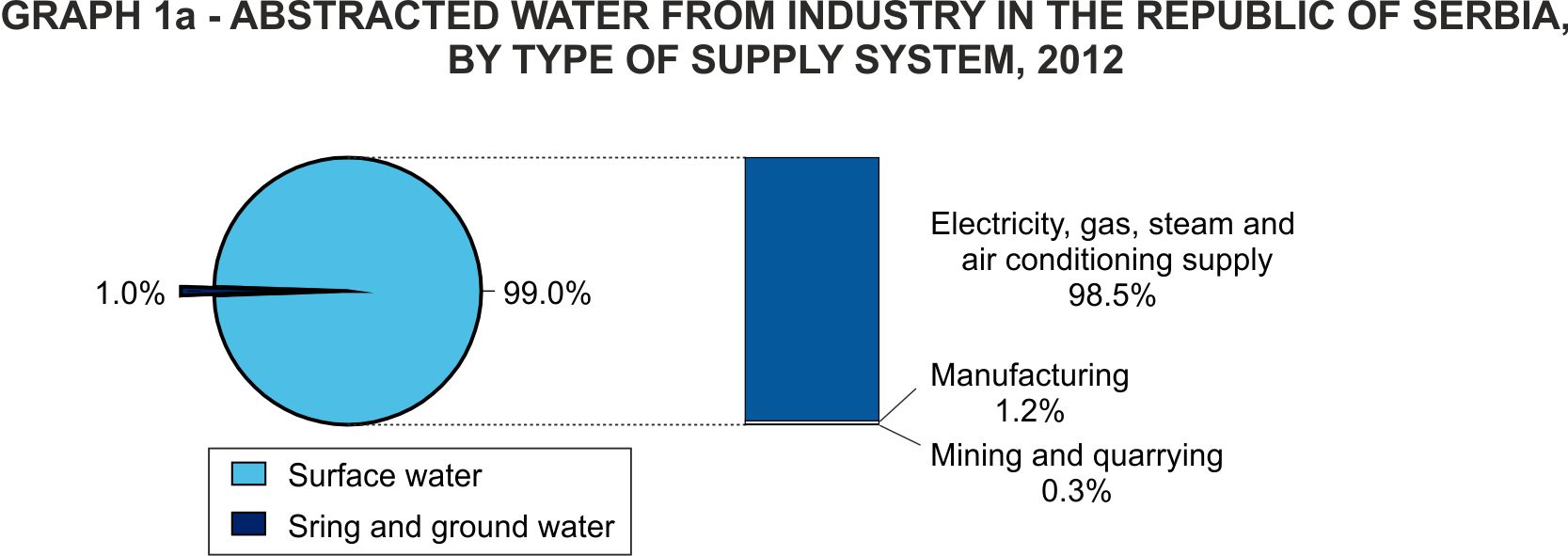
**2. Water abstraction from industries, by type of supply system, 2012**

**Republic of Serbia thous. m3**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Total | From public water supply | Self-supply | |
| Ground water | Surface water |
|  |  |  |  |  |
| **Abstracted water1)** | **3 067 446** | **19 555** | **30 007** | **3 017 884** |
| Mining and quarrying | 11 297 | 891 | 2 339 | 8 067 |
| Manufacturing | 78 128 | 16 398 | 24 691 | 37 039 |
| Electricity, gas , steam and air conditioning supply | 2 978 021 | 2 266 | 2 977 | 2 972 778 |
|  |  |  |  |  |
| **Water intensive industries** | **3 025 587** | **8 411** | **17 093** | **3 000 083** |
| Electricity, gas , steam and air conditioning supply | 2 978 021 | 2 266 | 2 977 | 2 972 778 |
| Manufacture of basic metals | 21 475 | 1 381 | 717 | 19 377 |
| Manufacture of food products | 17 341 | 2 526 | 12 434 | 2 381 |
| Manufacture of chemicals and chemical products | 8 750 | 2 238 | 965 | 5 547 |

1) Water used for hydropower plants, which is not included in this table, in 2012 amounted 167 630 mill. m3.

**Graph 1 - Abstracted water from industry in the Republic of Serbia, by type of supply system, 2012**



Out of the total used water in industries, 97.1% refers to water used in sections Electricity, gas, steam and air conditioning supply, 2.5% to water used in Manufacturing, while 0.4% relates to water used in Mining and quarrying.

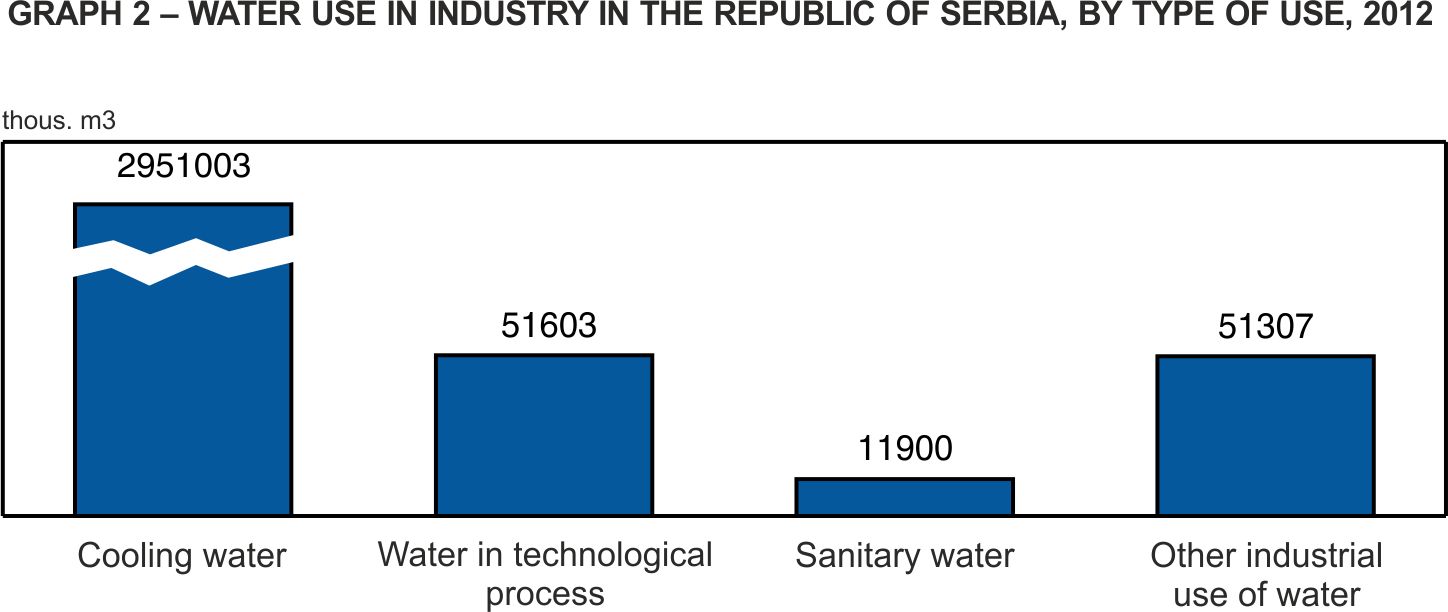
**3. Water use in industry, by type of use, 2012**

**Republic of Serbia thous. m3**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Total water use in industry | Cooling water for electricity generation | Other cooling water | Water in technological process | Sanitary water | Other industrial use of water | Water losses |
|  |  |  |  |  |  |  |  |
| **Water use1)** | **3 065 813** | **2 929 346** | **21 657** | **51 603** | **11 900** | **51 307** | **1 633** |
| Mining and quarrying | 10 933 | 0 | 205 | 8 378 | 1 469 | 881 | 364 |
| Manufacturing industry | 76 870 | 73 | 20 680 | 35 079 | 8 658 | 12 380 | 1 258 |
| Electricity, gas, steam and air conditioning supply | 2 978 010 | 2 929 273 | 772 | 8 146 | 1 773 | 38 046 | 11 |
|  |  |  |  |  |  |  |  |
| **Water intensive industries** | **3 024 458** | **2 929 338** | **19 026** | **26 612** | **4 862** | **44 620** | **1 129** |
| Electricity, gas, steam and air conditioning supply | 2 978 010 | 2 929 273 | 772 | 8 146 | 1 773 | 38 046 | 11 |
| Manufacture of basic metals | 20 510 | - | 14 499 | 4 857 | 928 | 226 | 965 |
| Manufacture of food products | 17 188 | 65 | 2 157 | 8 107 | 1 345 | 5 514 | 153 |
| Manufacture of chemicals and chemical products | 8 750 | - | 1 598 | 5 502 | 816 | 834 | - |

1) Water used for hydropower plants, which are not included in this table, in 2012 amounted to 167 630 mill. m3.

**Graph 2 – Water use in industry in the Republic of Serbia, by type of use, 2012**



Of the total disharged wastewater from industry, 45.7% comes from section Electricity, gas, steam and air conditioning supply, 48.7% from Manufacturing and 5.6% from Mining and quarrying.

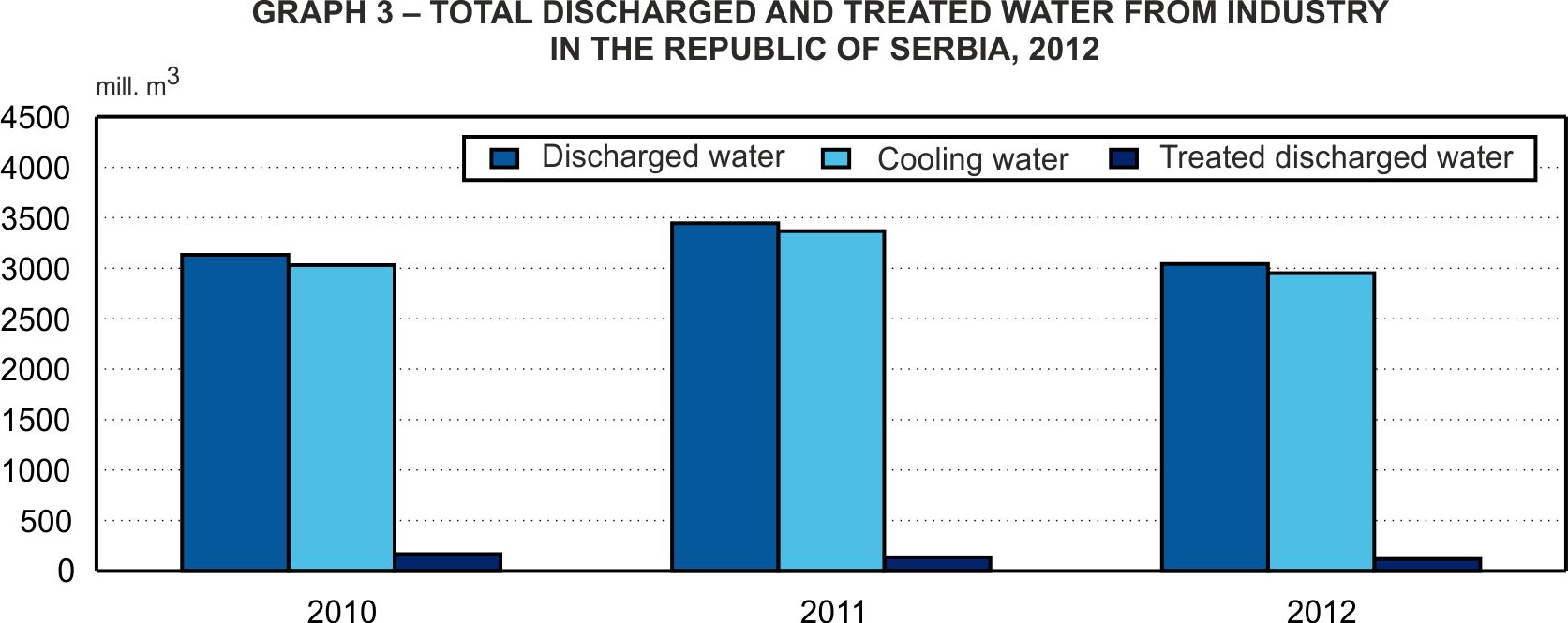
**4. Discharged1) water form industry, 2012**

**Republic of Serbia thous. m3**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Укупно | Испуштене воде, од тога: | | |
| за хлађење | рециркулационе воде | отпадне воде |
|  |  |  |  |  |
| **Discharged water** | **3 046 166** | **2 951 003** | **215** | **95 163** |
| Mining and quarrying | 5 546 | 205 | - | 5 341 |
| Manufacturing industry | 67 121 | 20 753 | 23 | 46 368 |
| Electricity, gas, steam and air conditioning supply | 2 973 499 | 2 930 045 | 192 | 43 454 |
|  |  |  |  |  |
| **Water intensive industries** | **3 014 351** | **2 948 364** | **200** | **65 987** |
| Electricity, gas, steam and air conditioning supply | 2 973 499 | 2 930 045 | 192 | 43 454 |
| Manufacture of basic metals | 19 485 | 14 499 | - | 4 986 |
| Manufacture of food products | 15 493 | 2 222 | 8 | 13 271 |
| Manufacture of chemicals and chemical products | 5 874 | 1 598 | - | 4 276 |

1) In total discharged water, water used for hydropower plants are not included.

**Graph 3 – Total discharged and treated water from industry in the Republic of Serbia, 2012**

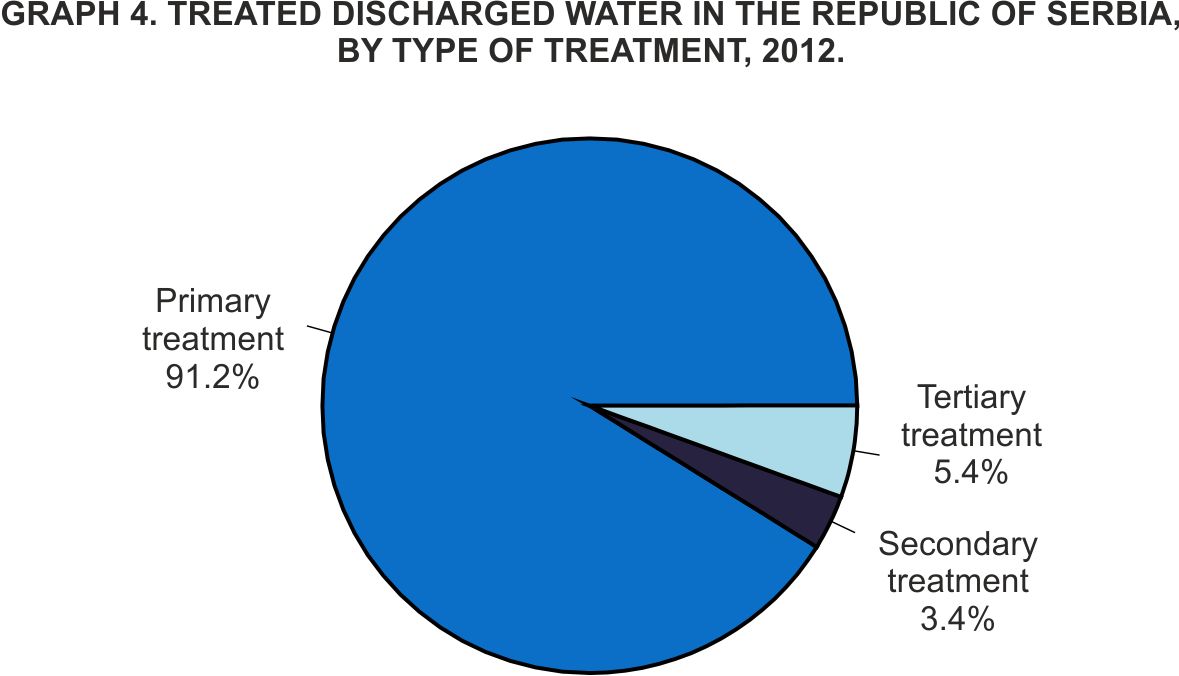


**5. Treated and reused water from industry, 2012**

**Republic of Serbia thous. m3**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Treated discharged water | | | | Reused water |
| Total | Primary treatment | Secondary treatment | Tertiary treatment |
|  |  |  |  |  |  |
| **Treated and reused water** | **118 953** | **108 508** | **3 985** | **6 460** | **966** |
| Mining and quarrying | 3 564 | 1 566 | 1 998 | - | 2 |
| Manufacturing industry | 38 016 | 30 070 | 1 486 | 6 460 | 100 |
| Electricity, gas, steam and air conditioning supply | 77 373 | 76 872 | 501 | - | 864 |
|  |  |  |  |  |  |
| **Water intensive industries** | **106 769** | **101 135** | **1 701** | **3 933** | **871** |
| Electricity, gas, steam and air conditioning supply | 77 373 | 76 872 | 501 | - | 864 |
| Manufacture of basic metals | 14 275 | 13 431 | 2 | 842 | - |
| Manufacture of food products | 8 510 | 5 776 | 1 050 | 1 684 | 1 |
| Manufacture of paper and paper products | 4 605 | 4 555 | - | 50 | 6 |
| Manufacture of chemicals and chemical products | 2 006 | 501 | 148 | 1 357 | - |

**Graph 4. Treated discharged water in the Republic of Serbia, by type of treatment, 2012.**



**Methodological notes**

Methodological explanations on Water use and protection against pollution can be found on the SORS website: http://webrzs.stat.gov.rs/WebSite/Public/PageView.aspx?pKey=201

Data series on Water use and protection against pollution from the reference year 2002 are available within the SORS database: <http://webrzs.stat.gov.rs/WebSite/public/ReportView.aspx> , and as a part of the SORS publications: http://webrzs.stat.gov.rs/WebSite/Public/PageView.aspx?pKey=200.

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| *Contact:milijana.ceranic@stat.gov.rs; [ana.vignjevic@stat.gov.rs](mailto:ana.vignjevic@stat.gov.rs) phone: 0112412922 ext.246*  *Published and printed by: Statistical Office of the Republic of Serbia, Milana Rakica 5, Belgrade*  *Phone: +381 11 2412922 ● Fax: +381 11 2411260 ● www.stat.gov.rs*  *Responsible: Dragan Vukmirovic, PhD, Director Circulation: 20 •*  *Issued* *annually* |