

Water management

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Selected Indicators - Methodological notes

Water-supply systems and sewage include waterworks activities related to the administration and operation of water-supply and sewage systems, i. e. production and supplies of drinking water and drainage of sewage water and its purification.

Length of dikes protecting against flooding is measured in the axis of a dike and on each bank separately. Length of artificial canals and intakes also includes canals and intakes kept in covered profiles. Values of individual pollutants drained off into the water courses are presented for water plants and sewage companies as well as for river-basin companies.

Values of **water pollution** are shown for producers monitored by water plants and sewage companies as well as river-basin ones.

Categorization into individual quality categories by five groups of indicators is done by the STN 75 7221 Classification of the Surface Water Quality.

- A set of indicators - oxygen balance
- B set of indicators - basic physical and chemical indicators
- C set of indicators - nutrients
- D set of indicators - biological indicators
- E set of indicators - microbiological indicators

Surface water by water quality is categorized into the following 5 categories:

- Category 1 - very pure water
- Category 2 - pure water
- Category 3 - polluted water
- Category 4 - heavily polluted water
- Category 5 - very heavily polluted water

Definitions

Dam is an inflating construction damming the river-bed or, exceptionally, valley, for the formation of a reservoir to obtain a permanent or temporary inflation of water for various waterworks purposes.

Water reservoirs are implementations of water off takes for public water supply.

Controllable volume of water reservoirs is a total controllable capacity of reservoirs where it is possible, regardless of tributaries to the reservoir, to accumulate and to empty water as necessary.

Retentive volume of water reservoirs is a controllable protective capacity of the reservoir.

Reserve volume of water reservoirs is a part of the total reservoir capacity that serves for improving flow and for securing water taking in drought areas.

Area of territory endangered by floods includes areas that are endangered by high waters. High water consists of 10 year old water (Q 10) and 100 year old water (Q 100). Approximate figures are given.

Area of the territory protected against floods includes the area that would be flooded because of higher flows of water in water-courses in the case that the retentive capacities of reservoirs, adjustments to water courses, or preventive dikes were not built.

Production of drinking water includes the total amount of drinking water produced in water-supply stations under the administration of companies of water plants and sewage and municipalities after adding an amount of drinking water taken from other waterworks organizations or from other water suppliers (legal persons) and after subtracting an amount of drinking water delivered free of charge to waterworks organizations (e. g. among units of water plants and sewage companies).

Invoiced water includes the amount of drinking water sold to direct customers.

Non-invoiced water includes losses of water in the pipe network, own water consumption or possible free water supplies, e. g. for fire protection purposes.

Sewage disposal plants are facilities purifying sewage water, applying mechanical and biological methods of purification or the so-called third stage of purification applying additional mechanical and biological purification. Sewage disposal plants do not include facilities for rough pre-purification of sewage (sand-traps, oil-traps, etc.), septic tanks, cesspools and simple facilities that are not observed and served regularly.

Suspended solid pollutants are substances determined by water filtration and dehydration of the rest (on filter) at 105 °C to constant weight.

Oil pollutants are the substances extracted from water, excluding polar substances that can be separated from the extract by a standard method.

Biochemical oxygen demand (BOD) is the volume of oxygen consumed in aerobic biochemical decomposition process of organic compounds present in the water for a period of 5 days at standard conditions.

Chemical oxygen demand (COD) is a consumption of oxygen (O₂) by the dichromate method.

Source

Data on water management are obtained from surveys carried out by the Statistical Office of the SR. Data on water quality are taken from the Slovak Hydrometeorological Institute and from the

Public Health Authority of the SR. More information can be obtained in the publication "Water Management" and from the organizations mentioned above.