



## Quality of the Duman water source

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The Duman water source is located in the area of Livno and it is the basis of the water supply system of urban and peripheral urban areas. It runs under the rocky edge of Crvenica, which belongs to the mountain mass of Kruzi-Cincar. The amount of water of this source depends on the season and the amount of rainfall, and during the year it varies from a maximum flow rate of 4800 L / s to a minimum of 370 L / s.

During the last two years the physicochemical and microbiological parameters of the water quality of the mentioned source have been monitored according to BAS EN ISO standards, and the obtained values are compared with the climatological picture i.e. by the amount of rainfall in the mentioned period. During the rainy season, when water flow is increased, the occurrence of water cloudiness and the increased number of fecal coliform bacteria have been reported.

Water turbidity values in the examined period ranged from 0.01 to 1.25 nephelometric units of turbidity (NTU), whereas according to the Ordinance on the health of drinking water of Federation of Bosnia and Herzegovina the value of NTU should not exceed 1.

Depending on the amount of rainfall, there were also marked changes in the microbiological parameters of water quality. The total number of coliform bacteria per 100 mL was between 20 and 200 while the Ordinance on the health of drinking water allowed the total number of faecal coliform bacteria 0/100 ml. These results may be due to dirt impurities from the surface or surface of underground flow during flow as well as limestone substrates and the inability of natural filtration, and such water represent a constant potential danger to consumers and require a very strict control regime.

**Key words:** water quality, physicochemical parameters, microbiological parameters, climatological image