

REPORT on Visit of CKH Members to the Source Bolje Sestre Tapped for Regional Waterworks of the Montenegrin Coast



After successful completion of the third international course and field seminar *Characterization and Engineering of Karst Aquifers* that was held in Trebinje, Bosnia & Herzegovina, between 30 May - 6 June, 2016, organisers and teachers of the course, members of the Centre for Karst Hydrogeology Dr Zoran Stevanović, Dr Vesna Ristić Vakanjac, Ljiljana Vasić BSc. geol., Branislav Petrović BSc. geol. and Veljko Marinović MSc. geol., together with lecturers Dr Abraham Springer, Professor of the School of Earth Sciences and Environmental Sustainability of Northern Arizona University, USA and Dr Hermann Stadler, Senior scientist at Joanneum Research Institute for Water, Energy and Sustainability Water Resources Management Austria Graz, travelled to Podgorica, Montenegro where they were guests of **the Regional Waterworks for the Montenegrin Coast** on June 7th 2016. Together with them, meeting was attended by Dr Romeo Eftimi from ITA, Tirana, Albania. Among hosts were Dr Mićko Radulović and Dr Milan Radulović who were involved in the design and development of this source, as well as Momčilo Blagojević as representative of the Ministry of Agriculture and Rural Development of Montenegro.

During the visit of the "Bolje Sestre" spring in Malo Blato in the Skadar Lake Basin, members of CKH have met the top management and staff (engineers and managers) of the Regional Waterworks led by Goran Jevrić, Executive Director.



Dr Zoran Stevanović made a small verbal presentation about geological and hydrogeological setting of the area of this sublacustrian spring. Afterwards, the main engineer of production A. Cerović and M. Zenović have informed guests about "Bolje Sestre" spring water exceptional quality that fulfils all requirements for water bottling and other source technical details.



Members of the CKH and their hosts at the Bolje Sestre spring

The minimum discharge of the spring exceeds the long-term demands of the Montenegrin Coastal Region. However, if the consumption of water continues to grow the system will be built up, so it may reach the optimal capacity of 1600 l/s. The water intake area has been built in the form of a coffer dam made of reinforced concrete with the special flow regulation system which prevents lake water from entering the spring zone (prevents mixture of surface and groundwater).



The intake structure – the coffer dam of spring "Bolje Sestre"

The regional water supply system consist of the two main sections:

- The Continental section facilities for water production and its transport
- The Coastal section system of distribution water along Montenegrin coastal region.

After introduction with the history of research and development of the system, guests and their hosts took a tour through the facilities for water production: pumping section, UV disinfection area, laboratory for monitoring of basic physical and chemical parameters.









Members of the CKH and their hosts in the facilities for water production and monitoring of groundwater quality

At the end members of CKH, lectures of the CEKA course and hosts from the Regional Waterworks held a meeting about the system itself, possibilities for technical and management improvements, and possibilities for water export and marketing potential.



The meeting of managers of the Regional Waterworks and guests

Afterwards, Dr Zoran Stevanović, Dr Abraham Springer, Dr Romeo Eftimi gave their statements to the local TV station.

Reported by

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