

The paper entitled Natural Disasters on Drmno Open Cast Mine, August and September 2014 by Goran Horvat, a graduate mining engineer from TE-KO Kostolac, provides a chronological overview of the floods that affected the area of the Drmno open cast mine and describes relevant rehabilitation measures.

Natural disasters that hit the mine in 2014, with enormous and unprecedented levels of rainfall in May, July and September, had a massive impact on the facilities operated by Electric Power Industry of Serbia and the budget of the Republic of Serbia.

Therefore, it is necessary to thoroughly examine the situation, analyse data, draw conclusions and take steps in order to forestall such events in future and prevent any unwanted situations.

Drmno open cast mine is located some 10 km from Kostolac and about 15 km from Pozarevac, in the immediate vicinity of the Danube and Mlava rivers, which makes its operating conditions difficult, especially due to large groundwater inflows. As stated in the paper, the design capacity of the Drmno mine is nine million tons of coal annually.

This mine currently has 320 wells in operation, serving as protection against groundwater.

Some 857 l/s of water are pumped from these wells, i.e. some 75,000 m³ of water a day.

Some 120 l/s of groundwater or 10,500 m³ reaches this mine, which is about 320 to 350,000 m³ per month, or about 4,000,000 m³ per year. This water is continuously pumped out of the mine.

During the rainy season, this flow increases to over 140 l/s of water, or over 12,000 m³ of water per day.

Water collector collecting surface and groundwater is dimensioned to about 70,000 m³. On the floor bench around the water collector there is additional space to receive more than 100,000 m³ of water. Two 315 kW pumps pump water from the water collector, with a capacity of about 2 x 100 l/s or about 17,000 m³ per day.

In order to remediate the consequences of floods, the author notes funds should urgently be secured either through grants or loans to supply additional, new or reconstructed pump generators of higher power and operational readiness including pipelines to ensure pumping continuity without forced outages.