

## Rivers and Lakes

### Rivers

The largest river in the region of Leskovac is the Južna (South) Morava River, which flows South to North, and together with the Zapadna (West) Morava River forms the Velika (Great) Morava River. Tributaries of the Južna Morava are as follow:

- The Vlasina river, which collects water from Lake Vlasina and flows through Crna Trava and Vlasotince;
- The Veternica river, which flows through Leskovac;
- The Jablanica river, which springs from the foot of Goljak and flows through Medveđa and Lebane;
- the Pusta (Deserted) river, which starts on Radan mountain, fills Lake Brestovačko and flows through Bojnik.

The river Vučjanka, which springs from the Kukavica Mountain, flows through Vučje and is a tributary of the Veternica River. The Kozaračka, Predejanska, Kopačnica and Sušica rivers are also known in the Leskovac region.

Leskovac is surrounded by three artificial lakes, the Brestovačko, Barje and Vlasinsko lakes.

### Artificial lakes

The Vlasinsko reservoir lake spreads out at the altitude of 1,205 m above sea level. It originated with the damming of the valley of the former vasetinian mud, and is located in the South-East of Serbia. It spreads is over 12 sq km, with a length of 13 km and a width of approx. 3 km. The average depth of the lake is about 12 m, and at certain depressions the depth reaches up to 22 m. At it's peak elevation (1213.8 m) the overall volume of water amounts to 168 x 106 cubic meters, and the spread reaches over 16.5 sq km. At it's lowest elevation (1204 m) the spread reaches 5.6 sq km.

The area belongs to the moderately Continental region, with a faintly emphasizes component of the Mediterranean region. The average annual precipitations in the confluence of the Veternica river amount to 800 mm, but are unevenly distributed. the biggest amounts fall during the spring months, and slightly less in the autumn months (october and November).

The Barje Accumulation reservoir originated with the damming of the Veternica river, 30 km upriver from Leskovac, at a village of the same name. The first basic purpose of the accumulation was the protection of the city of Leskovac, and later of the Lebane municipality, which now represent it's primary purpose. This kind of function of the accumulation imposes the need for the maintenance of a high, yet economically optimal (cost effective) quality of water in the accumulation during long periods of time.

The maximum volume is 49,670,000 cu m of water, and the area of the water mirror at the elevation of 379.55 m above sea level is 139 hectares. In conditions of normal slow-down and useful volume of accumulation for water supply, the volume is 26,000,000 cu m. The maximum depth of the accumulation in conditions of normal slow-down is 25 m. The average width of the accumulation is about 300 m, and the length, depending on the filling, varies from 7.1 to 7.5 km.