

## **BORUCINKA CATCHMENT**

The river-basin of the river Borucinka is situated within west-central part of Kaszubskie Lakeland., about 16 km south-west from city Kartuzy. The catchment area is 31,4 km<sup>2</sup>. The river basin of Borucinka is a part of hydrographic system of the river Radunia, which belongs to the catchment of Upper Lake Raduńskie.

The area is characterized by the considerable hypsometrical differentiation – there are moraines, as well as surface sander high plains.

The area is dominated by arable land, agriculturally used meadows and pastures. This area belongs to the most deforested one in the whole region of Kaszubskie Lakeland.

### Land use:

Build-up areas – 66,4 ha 2,0%  
Surface waters – 55,6 ha, 1,8%  
Forests – 286,6 ha, 9,1%  
Brushwood – 32,2 ha, 1,0%  
Meadow and pastures – 603,9 ha, 19,2%  
Waste land and grasses – 143,1 ha, 4,5%  
Croplands – 1967,7 ha, 62,4%

Forests - the superiority of pine monocultures

Considerable areas are covered with bosky phases of high and temporary moss.

Built-up areas are small, usually not large and dispersed.

### General characteristics

- The distinct differentiation of the main river valley in the upper section - gutter with wide flat gouts and minimum falls, and final, the lower one - comparatively narrow with little higher falls.
- The considerable morphometric differentiation - with the elevation differences above 100 m (the lowest point at the Borucinka mouth - 161, 6 m asl., the highest altitude in the northern part - 266, 85 m asl.).
- The occurrence of comparatively numerous and small water reservoirs (< 1 ha), swamps, and marshy grounds. Their distribution is related to the lay of the land (the occurrence of bigger valley forms) and the surface geological structure with connected impermeable bed.
- In the bottom of the gutter section of the valley, there is a significant participation of drainage ditches in overflowing the water from meadows to the river, mostly in the spring time.
- Areas that are entirely without the surface outflow - account to 0,67 km<sup>2</sup> (11,5% of examined catchment) and those that are drained only periodically – 1,82 km<sup>2</sup> (31,3%).

The main sources of pollutants, within the catchment area, are point sources from the households, which are aggregated mostly in two villages: Borucino (in the south) and Kamienica Szlachecka (in the central part of the catchment). Nutrients may get into the hydrographic net also via fertilized land.

The area is also characterized by the lack of industrial plants.