SMALL WATER RESERVOIRS IN THE TERRITORY OF WROCLAW LAND DISTRICT

Key words: classification attempt, inventory methods, small water reservoirs, Wrocław land district

Summary

The primary content of the study is the number and location of small water reservoirs in the territory of Wroclaw land district in drainage basins of the II and III order. Their role and importance in the spatial management and agricultural landscape is presented based on the literature. A stand on the inventory methods of these reservoirs was taken and their classification in the studied area was attempted. It was found that the most precise and reliable data were obtained in own research by making inventory of reservoirs based on soil agricultural maps in the scale of 1:5,000 and creating a separate layer in the database of the environmental factors of Lower Silesia voivodship in the GIS ARC INFO system. An attempt of their classification was made on the basis of features defining the water reservoirs' location in the field through comparison of the content of soil agricultural maps with a topographic map in the scale of 1:10,000. The examination revealed 1312 water reservoirs (1.2 per km$^2$) in the district territory. Their greatest number was found in the drainage basin of the Bystrzyca with Strzegomka (433). The densest network of reservoirs (2.6 and 2.4 per km$^2$) is characteristic of the drainage basins of the Oława and the Odra. The drainage basin of the Ślęza is poorest in reservoirs. In this drainage basin 256 reservoirs were inventoried and their density was 0.7 per 1 km$^2$. The reservoirs in the district territory originated mainly from human activity as the former pits remained after clay, sand and gravel excavation. Second frequent are dug reservoirs intended for: fire control reservoirs, fishponds and decorative reservoirs. Natural reservoirs - the so-called midfield water holes (within the reach of cultivated fields and grasslands) and mid-forest ones are scarce. Altogether in the district territory most water reservoirs can be found in the vicinity of built-up areas and oxbow lakes. Dam reservoirs on rivers belong to a separate category. General information on the latter was gathered from a study on small water retention in the Lower Silesia voivodship.

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