INVESTIGATION OF SURFACE WATER BODIES POLTAVA REGION

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Implementation of quality of surface waters is important stage on which priorities are determined by water protection activities, the Organization of monitoring networks and water-planning activities.

The river network of the Poltava region includes a large river – the Dnieper, which flows within the region in the area 145 km long, 8 medium-sized rivers with total length of 1,360 km and 1,771 small rivers, streams and creeks total length of 11,501 km, and 69 small reservoirs. The main sources of water area is the river Sula, Psel, Vorskla, Orel and their tributaries, and Kremenchug water reservoir and the river Dnipro [1].

Monitoring of water sources in the region shows that the negative processes in rivers, reservoirs and ponds continues. Most rivers and streams zamulylysya, overgrown wetland vegetation and shrubs have lost their natural meaning. They do not have draining capacity, resulting in a floodplain wetlands and flooded the land and not used in the agricultural sector. Especially this is true for small rivers, channels length does not exceed 20-35 km. Because of their beds and swamps flooded land is not created water-coastal zone, they are in poor sanitary condition and Hydrotechnical.

The study of water quality of rivers in Poltava region was performed on the basis of the known Ukrainian methodological approach developed Derzhkomhidrometom [2], based on an assessment of water quality of groundwater by hydro chemical parameters. This method involves identifying combinatorial pollution index (goats) based on detection of dangerous level for each of the selected indicators in alignment and determination of recurrence cases exceeding MPC and multiplicity dangerous level.

For the purposes of these studies was chosen range from 8 hydro chemical parameters, namely: BOD5, chlorides, sulfates, iron general, nitrite ions, nitrogen salt of ammonia, phosphates, petroleum products. Studies were conducted according to the observations of the Poltava Oblast Sanitary and Epidemiological Service and the State Department of Environmental Protection in the Poltava region during the 2005-2011 year (by 106 ranges).

The evaluation of quality of river water pollution of Poltava, on average, ranging from class III "dirty water" (goats = 3.0) to fourth grade "very dirty" (goats = 6.25).Water quality in the alignment of the rivers Dnieper and Psel mainly refers to the third class, that is classified as "dirty" (goats = 3,0 ÷ 4,0), water quality in rivers Sula, Khorol and Vorskla is characterized class IV – "very dirty" water. Especially negative status regarding pollution formed in the alignment of small rivers curve ore, was dry Lokhvytsya, r Kolomak, r Bagachka, was dry Kahamlyk, by Uday, R. Tatar, r beater, he Hovtva, by dry Kobelyachok, was rotten Orzhytsya – goats on the calculation of water quality monitoring data alignment rivers belongs to class IV (very dirty) (Fig. 1).

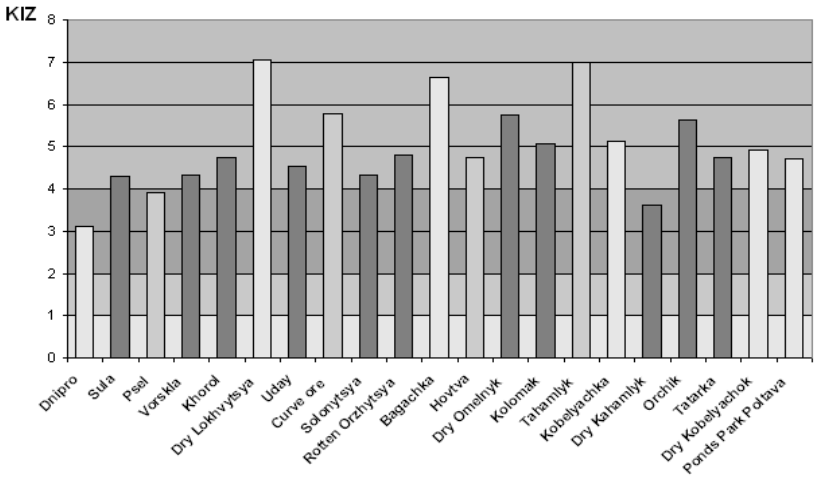

Figure 1 The analysis of surface water in Poltava region
for the period 2005 – 2011

According to research in 99 ranges of a total of 106 alignment quality of water in reservoirs from pollution is classified as "very dirty" (fourth level). This group of water bodies is almost all small rivers. Only 4% of the total number of points for research on pollution levels classified as "contaminated" (second level).

The results of these studies are a prerequisite for selection of priority direction of environmental activities in the Poltava region until 2015 – the restoration and maintenance of favorable hydrological regime and the health of rivers, certification of small rivers and reservoirs [3].

1. Agro ecological Atlas of Poltava. Environmental Library of Poltava. Issue 7. – Poltava, 2009. – 7 p.

2. Environmental assessment of surface water quality sushi and estuaries Ukraine: methods. CPV 211.1.4.010-94. – K., 1994. – 37 p.

3. Regional program for environmental protection, rational use of natural resources and environmental safety, taking into account regional priorities of the Poltava region in 2012-2015 years ("Environment-2015"). – Poltava, 2012. – 164 p.

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