

Use of the resource potential of a small surface water body on the basis of a compensation mechanism

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Small surface water bodies (SSWB) play an important role in the formation of the territorial channel structure of the locality. The resource potential of SSWB is represented a set of water resources that characterize the biological, fisheries and recreational value of the ecosystem of the locality, which can be used for socio-economic activities, taking into account technological capabilities, based on minimizing environmental damage.



The resource potential of SSWB is use without taking into account the adverse environmental consequences that already occur or are only expected, should be compensate by measures to improve, reproduce the natural environment, so it is necessary to develop a compensation mechanism.





The characteristics of the environment do not change with the arrival of a small amount of pollutants, as the effect of the assimilation potential of the territory works. Environmental damage may not be observe in this case. Harmful substances can form compounds during interaction that have a higher hazard class, which is not take into account in the calculations.

The methods for calculating the economic damage caused and prevented damage are using them, the latter repeatedly exceeded. This circumstance is due to the fact that the economic damage can be comparable to the assimilation potential of the territory, and the prevented damage can be both greater and less than the assimilation capacity

$$\sum ED = \sum PD$$

$$\sum ED = \sum CC$$

$$PD < CC < PD$$

where ED (economic damage) – economic damage, ie; PD – prevented damage) – prevented damage, ie; SS (carrying capacity) - assimilation potential (capacity), usl. tons.

THE PRINCIPLE OF COMPENSATION FOR PREVENTED DAMAGE

where Mi - is the number of environmental protection measures, units; Si - is the cost estimate of environmental protection measures, rubles;

Kpi - is a coefficient that takes into account the regional and local characteristics of the territory, taking into account its assimilation capacity, the share of;

Kp – the predicted degree of change in the quality of the environment,%.





The total accounting of pollutants will allow determining the cumulative effect of the impact on a specific natural object, identifying the sources and volumes of potential and real pollution.





The compensation mechanism is a set of costs in physical and cost terms for carrying out environmental protection measures, taking into account the projected development of environmental quality.