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ASSESSMENT OF DAMAGE CAUSED BY POLLUTION OF WATER BODIES

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Abstract: In nature, we are witnessing an increase in pollution of water bodies as a result of atmospheric pollution and water depletion. Liquid chemical substances and heavy metals are observed in water bodies. Pollution of water bodies in Khorezm region was assessed and studied.

Key words: PDK, microflora, economic evaluation, constanta, waste waters**.**

Аннотация: В природе мы наблюдаем рост загрязнения водных объектов в результате загрязнения атмосферы и истощения вод. В водоемах наблюдаются жидкие химические вещества и тяжелые металлы. Оценено и изучено загрязнение водных объектов Хорезмской области.

Ключевые слова: ПДК, микрофлора, экономическая оценка, константа, сточные воды.

The economic assessment of the damage caused by the discharge of polluting compounds from some sources to water management sites is determined by the following formula.

$$Q = Q_{day} = 9301{,}67 \times 365 = 3395109{,}55 \text{ m } 3 \text{ /year}$$

$$У = \gamma \times \delta к \times M = 64800 \times 0{,}73 \times 29{,}72 = 1405874{,}88 \text{ soums/year} \quad (1)$$

Here: U- estimated damage, soums/year.

γ - the numerical value is equal to the following, 750 soums/(conditional/ton).

δ к - a constant with different values for different water management plots and its value are given.

M - the weight of the mixtures annually discharged from certain sources to the water management plots (conditionally. tons/year) and its quantitative value is determined by the following formula.

conditional.t/year (2)

$$M = \sum_{i=1}^{N} A_i \times m_i = 0{,}33 \times 78{,}20 + 0{,}05 \times 78{,}20 = 29{,}72$$

Here: i is the sequence number of the mixture being thrown.

N - the total number of mixtures being discharged to specified sources.

A_i - the danger index and its value of throwing i substance into the basin are determined by the following 6-formula.

m_i - total annual weight of mixtures discharged to designated sources in tons/year. Different types of wastewater with different levels of treatment are discharged from the sources, therefore, the total weight of compounds discharged annually i in the basin where various types of wastewater are discharged is determined by the following formula.

$$m_i = \sum_{j=1}^{R} m_{ij} \quad (3)$$

Here: m_{ij} - annual weight of i substance added to the basin with j type of wastewater from known sources and it is equal to j 1.2,.....R (tons/year). If only wastewater of type j and mixture i of type i coming to the basin during a relatively constant year C_{ij} (other sources not mixed with wastewater) are supplied to the designated source (other sources not mixed with wastewater), the annual weight of substance i coming with wastewater of type j can approach m_{ij}, and it is the following can be approximated to the defined formul

$m_{ij} = C_{ij} \times \nu_j = 3{,}0 \times 3{,}40 + 20 \times 3{,}40 = 78{,}20$ t/year (4) Here:

ν_j - annual discharge volume of j type of wastewater from the specified source into the basin (mln.m3/year).

If Pi % i (100 - Pi) in wastewater discharged from a number of consumers to a city or regional wastewater treatment facility, L is the number of consumers (l 1,2,.....L) annual amount of wastewater o thousand tons/year, the level of pollution retained from one consumer per year is determined by the following formula.

$$m_{il} = \frac{100 - P_i}{100} \times m_{il}^{o} = \frac{100 - 90}{100} \times 78{,}20 = 7{,}82$$

t/year (5)

The numerical value of A_i for each pollutant is determined by the following

$$A_i = \frac{1(г/м^3)}{ПДК_{р/хі}(г/м^3)} = \frac{1}{3} = 0{,}33$$

$$A_i = \frac{1(г/м^3)}{ПДК_{р/хі}(г/м^3)} = \frac{1}{20} = 0{,}05 = 1/20 = 0{,}05$$

formula. (conditional)

Here: $PDK_{p/xi}$ is the permissible percentage of substance i in the water of water sources for the purposes of fish farming. In the determination of A_i, $PDK_{p/xi}$ is allowed until $PDK_{p/x}$ is confirmed if there is no confirmed value of $PDK_{p/xi}$. The formula (6) is used together with the approved value of $PDK_{p/xi}$ of the substance i in the water of water bodies for the use of household drinking and household water. For such substances, the value of A_i is taken according to the formula (1) in order to estimate the damages caused by the actual composition of PDK initially in their disposal with wastewater until complete liquidation.

taking into account the presence of not only Escherichia coli microorganisms in the water, the damage caused $A_i = 5 \times 10 \frac{усл.т}{т}$ by the contamination of the basin with bacterial microflora before processing is evaluated according to the following coli index.

$$M = a \times \frac{K}{K_o} v$$

Here: K is the average annual value of the coli index in the discharged wastewater. K_o - the standard value of the koli index in the basin used for drinking water supply without preparation (without water treatment) (drinking water, if the water is taken from the basin) . m^3).

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