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## **DETERMINATION OF METHODS AND IMPROVEMENT OF WATER CONDITIONS IN THE PIVDENNYI BUH RIVER**

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### ***Анотація***

*Запропоновано спосіб очищення від стічних вод і покращення якості води у річці Південний Буг. Мінімізація викидів стічних вод у річку для збереження довкілля. Запобігання винищення всієї екосистеми у річці. Вирішення екологічної катастрофи.*

**Ключові слова:** очищення, забруднення, басейн, річка, екосистема.

### ***Abstract***

*The way to treat wastewater and improve water quality in the Pivdennyi Buh River is considered. Minimize wastewater emissions into the river to preserve the environment. Prevent the destruction of the entire ecosystem in the river. Solving an environmental disaster.*

**Key words:** cleaning, pollution, pool, river, ecosystem.

### **Introduction**

The Pivdennyi Buh River is one of the largest rivers of Ukraine considered as the “pearl” of Podillia, and is one of the important water bodies of Ukraine. It flows through the territories of five regions and flows into the Black Sea. Unfortunately, over a long period of time, the river has been the subject to a lot of pollution, as the river is crossed by many dams, hydroelectric power stations, reservoirs have been formed, emissions from factories, as well as sewage runoff from private areas of residential areas that do not have a centralized sewage system. In addition, the internal ecosystem of the river is dying. Some species of fish have already died and no longer live in the river. All this leads to an ecological disaster that is flowing under our feet.

The purpose of the work is to present a method of river cleaning that can minimize emissions into the river.

### **Research Result**

The most useful way to minimize emissions into the river is the reconstruction of treatment facilities in large cities of the basin, as well as the construction of new ones in small cities. Discharges from these cities, which also receive industrial wastewater, are the largest surface water polluters in the basin. The situation in small settlements like for example in the village of Smolina, is extremely problematic. Sazonivka, Vatutine village, Tulchyn city, Khrystinivka city, Monastyryshche city, Katerynivka village and New village have a great amount of high specific discharge of mineral compounds of nitrogen, phosphorus and organic substances at the same time. In the city of Novomyrhorod, the city of Zvenigorodka, the village of Voronovytsia and the village of Bohdanivtsi wastewater is discharged without treatment at all.

### **Conclusion**

One of the methods of cleaning water has been determined. The reconstruction and construction of treatment plants will help to improve the state of the ecosystem, as well as reduce the discharge of wastewater into the Southern Bug River. The problem of extinction of various fish species and improving the state of the internal ecosystem is being solved.

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