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## **POLLUTANTS OF THE SEA OF AZOV**

The Sea of Azov is semi-enclosed sea of the Atlantic Ocean in the East of Europe. It is the shallowest sea in the world: the depth does not exceed 13.5 m, the average depth of about 7.4 m [2].

This sea is gentle, warm, calm and shallow. It attracts thousands of tourists every summer. The fishermen like to fish in its gentle waters. The favourite species of fish are bullheads, flatfish, pikeperch and many others. The people like this sea very much and harm the flora and fauna of it at the same time.

The first and most important factor that contributes to pollution of the Sea of Azov is flowing into the reservoir of the river, which receives industrial waste and household water. At the same time, this sea is one of the most productive seas in the world, but these days it almost lost its main purpose – fishing. In recent years, the concentration of rhodanite in the reservoir exceeds norms by 12 times, and the content of phenols increased by 7 times [2].

The main pollutant is "Azovstal", which is annually dumped into the sea more than 850 million cubic meters of waste, which is 99% of the total discharge of pollutants. In particular, December 1, 2014, the plant dumped into the sea 86118.3 m<sup>3</sup> of wastewater. The effluent is observed exceeding the maximum permissible concentration (MPC) of nitrogen ammonium to 2.74 times, the total iron 4 times, copper - 2.26 times, zinc - 1.76, oil products - 2.26 times. Close contaminant is Mariupol Sea trading port. Worried environmentalists steady growth in volume of sulfur overloaded in Ukrainian seaports. In the port of Mariupol overload of sulfur in 1998 - 2000 years increased by more than 2.5 times and reached 2 million [2].

With regard to waste, in areas of the coast of the coast system, purification and supply of purified water are in very poor condition, because some of them were built about a century ago. In some residential areas sewerage systems, followed by the purification of waste water, non-existent, so the sea is polluted through the river water.

Besides, not less important factor having an impact on the pollution of the reservoir, are the oil and the oil itself. As a result of maritime traffic and activity in the ports of the Sea of Azov dumped thousands of tons of fuel oil, sulfur and oil. This leads to unprecedented contamination of the bottom of the reservoir, offshore islands, as well as the death of the huge number of fish, mammals and birds, many of which are listed as endangered.

It is necessary to apply a set of measures to smooth make worse ecological status of the Sea of Azov. These measures are dependent not only on the large industrial enterprises, but also from each person in particular. The range of these measures should include:

- priority change in the development of the seaside (enhancing control over the activities of transport and shipping ports, reduction of hazardous cargo on board ships in the Sea of Azov, the structure of innovative wastewater treatment plants);
- significant decrease of irrevocable water consumption and increased river flows;
- adjustments in agricultural activities along the coast (minimization of crops that require chemical additives for growing (pesticides));
- significant increase in land and water areas that require additional protection in order to preserve the gene pool and the Eco Fund [1].

It is obvious that nowadays the Sea of Azov is in great danger. If in the nearest future not to take certain measures, the sea will perish, flora and fauna will die. It is necessary to reduce the catch of fish, or to prohibit it for not less than five years, as well as to reduce the amount of emissions and clean them with newer and more powerful equipment.

## **REFERENCES**

1. <http://dic.academic.ru>
2. <http://azovfish.ru>
3. <http://books.academic.ru>