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Programme



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West of England

Environmental monitoring of the aquatic environment - as a mechanism to evaluate the environmental impact of enterprises

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The environmental monitoring system is aimed at implementing the state policy of Ukraine in the field of environmental protection, efficient use of natural resources and environmental safety, the implementation of the relevant provisions of the Constitution of Ukraine (Articles 13, 16), Law of Ukraine "On Environmental Protection", Cabinet Resolution of Ministers



of Ukraine dated 30.03.98
№ 391 "On approval of the Regulations
on the state environmental monitoring
system", the Environmental Monitoring
Program of Zaporizhia region, which
was approved by decision № 2 of
27.07.2001 of Zaporizhia regional
council at the twenty-second session of
the twenty-third convocation.



The functioning of an effective environmental monitoring system is an integral part of state policy in the field of environmental protection, aimed at ensuring the constitutional right of citizens to a safe living environment.

The main purpose of environmental monitoring is to collect, store and process reliable and operational information, necessary to develop measures to prevent and reduce the negative effects of changes in the environment.





The environmental monitoring system is a multi-purpose, multi-level, open automated information system, the priorities of which are the protection of vital environmental interests of man and society; preservation of natural ecosystems; prevention of crisis changes in the ecological state of the environment and public health; prevention of environmental emergencies.





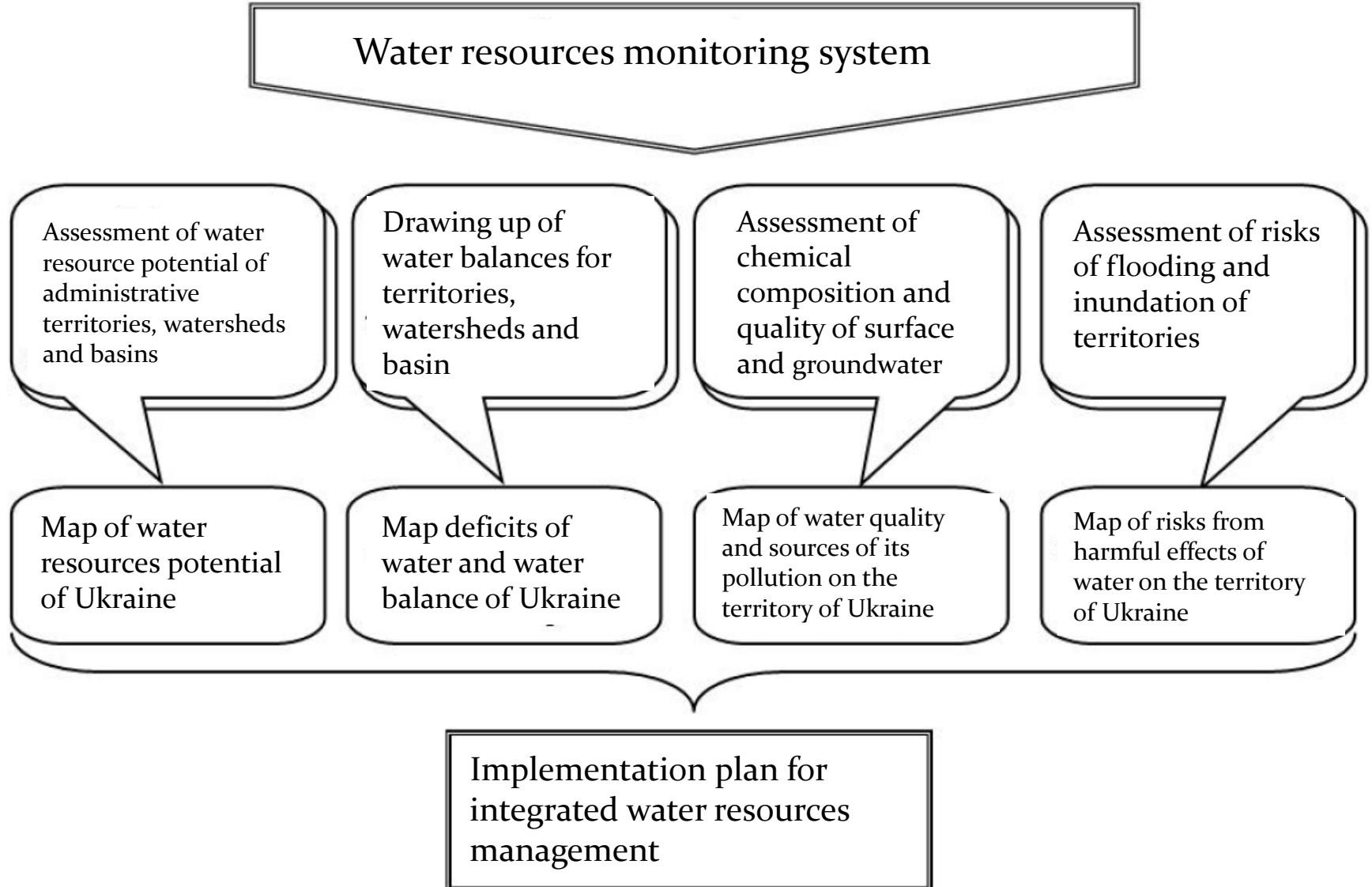
State water monitoring is carried out to ensure the collection, processing, storage, synthesis and analysis of information on the state of water bodies, forecasting its changes and developing scientifically sound recommendations for decision-making in the field of use, protection and reproduction of water resources.



The procedure defines a clear division of responsibilities between the subjects of monitoring without duplication of powers, introduces new monitoring indicators that have not been measured in Ukraine so far - priority, hydromorphological and biological.



Block diagram of integrated management water resources of Ukraine





Depending on the goals and objectives of the state water monitoring, the following procedures are established:

- ✓ procedure of diagnostic monitoring of surface and groundwater massifs;
- ✓ procedure for operational monitoring of surface and groundwater massifs;
- ✓ procedure of research monitoring of surface water massifs;
- ✓ sea water monitoring procedure.

Diagnostic, operational and research monitoring is carried out on a basin principle.



Surface water monitoring for the purposes of the river basin management plan

Areas of river basins



Tisza Sub-Pool

Ecological condition of surface water massifs



Monitoring



гідробіологічні показники



фізико-хімічні та басейнові специфічні показники

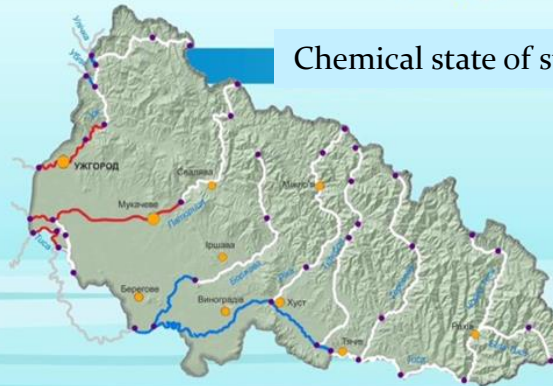


гідроморфологічні показники

Classes of ecological condition



Chemical state of surface water massifs



Monitoring



Дані відсутні



45 хімічних показників

Classes of chemical state



The main principles of surface water monitoring



Basic approaches to classification of surface water bodies according to their ecological status.



Figure 1. Classes of ecological status

Access mode : [http://www.if.gov.ua/files/uploads/Water_brochure_fin.pdf]

Elements included in the classification of the ecological status of water bodies:

Biological elements :

- composition and diversity of aquatic flora;
- composition and diversity of benthic invertebrate fauna;
- composition, diversity and age structure of fish fauna.

Hydromorphological elements :

- hydrological regime (water consumption and their dynamics, etc.);
- continuity of free movement of water flow;
- morphological characteristics (width and depth of the channel, structure and composition of bottom sediments, etc.).



WATER CODE OF UKRAINE

Water use - the use of water (water bodies) to meet the needs of the population, industry, agriculture, transport and other sectors of the economy, including the right to water intake, wastewater discharge and other uses of water (water bodies).



Water users in Ukraine can be enterprises, institutions, organizations and citizens of Ukraine, as well as foreigners and stateless persons, foreign legal entities.

Water users are obliged to control the quality and quantity of return waters and pollutants discharged into water bodies and the water quality of water bodies in control areas, as well as submit reports to the relevant authorities in the manner prescribed by this Code and other legislation acts.



Departmental monitoring is the main part of state monitoring and makes it possible to realistically assess the degree of environmental impact of production activities of enterprises.

Departmental monitoring must be carried out in accordance with the Law of Ukraine "On Environmental Protection" № 1264-XII of 25.06.1991, Art. 22.





Departmental monitoring at SE "Stevedoring Company "Olvia"

State Enterprise "Stevedoring Company "Olvia"(hereinafter - the company) is the main operator of the Specialized Seaport "Olvia" branch of Oktyabrsk SE "AMPU".

The enterprise is located on the southern outskirts of the Korabelnyia district of the city of Nikolaev. The territory from the west and the north borders on the water area of the Bug estuary, from the east - the territory of Eurovneshtorg LLC, from the south - borders with the forest massif, from the northeast the industrial zone adjoins the territory of the enterprise. The nearest residential building is 2.5 km away.

The company has six operating berths and one auxiliary. The port can accommodate three ships at a time.





Fig.2.Situational map location of SE "Stevedoring Company "Olvia"



SE "Stevedoring Company "Olvia" has nine discharges of sewage (storm) water, which are in the body of berths and shore protection.



The map of the location of wastewater (storm) discharges and control points of the water area of the State Enterprise "Stevedoring Company "Olvia" is shown in Figure 3.



Map of the location of wastewater and stormwater discharges



points of the water area of
the State Enterprise "Stevia
Company Olvia"

Legend

- - control well release
- T1 - background shot
- T2 - control target
- T3 - observation (raid) target
- T4 - control target
- T5 - control target



- ✓ The assessment of the impact of economic activity of SE "Stevedoring Company "Olvia" on water bodies was carried out taking into account the requirements of the legislation of Ukraine.
- ✓ By changing the values of pollutant concentrations at control points, it is possible to judge the anthropogenic impact of rainwater discharges, production activities and sanitary condition of its territory on the water body.
- ✓ Monitoring of estuarine water quality in the zone of influence of production activity is carried out by SE "Stevedoring Company "Olvia" on a quarterly basis.
- ✓ Control of water composition in the waters of the Port is performed according to the indicators, in accordance with MPC.



Departmental monitoring of surface water and wastewater is a section of the environmental report:

**CONCLUSION ON THE RESULTS OF DEPARTMENTAL
MONITORING OF ENVIRONMENTAL OBJECTIVES IN
THE AREA OF SE "Stevedoring Company "Olvia"**





This report provides an opportunity :

- ✓ to make an ecological assessment of the impact of production activities of the enterprise on the environment, including the state of surface waters of the Bug estuary;
- ✓ to develop environmental measures to improve the environment;
- ✓ the results of departmental monitoring are recognized as ancillary compared to the information of the subjects of state water monitoring and are included in the official only after verification and confirmation of its reliability by the subjects of state water monitoring.



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Thanks for your
attention!



INTEGRATED WATER RESOURCES MANAGEMENT: CHALLENGES OF THE XXI CENTURY

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