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**ENVIRONMENTAL CONSEQUENCES OF THE RF MILITARY  
 ACTIONS FOR THE OZERSKY QUARRY**

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**Abstract.** The article presents the results of the analysis of the influence of military and natural factors on the condition and operation of the quarry at the Ozersky clay deposit. It is shown that, in addition to the destructive influence of the Russian aggressors, the main threat to the operation of the quarry at the moment is hydrological factors. The quarry was flooded as a result of the increased inflow of groundwater from the feeding area of the tributary of the Irpin River. The level of these waters rose significantly after the flooding of the Irpin valley. These data are part of the results of the study of the ecological state of the quarry and the succession of its ecosystem.

As a result of the extraction of sand, clay, gravel and other mineral resources in an open way, quarry and dump types of the landscape are formed. After the cessation of quarries, non-flowing reservoirs are formed in their place, and purposeful reclamation or natural succession leads to the formation of whole ecosystems. Such ecosystems are considered as an important site of conservation of local biodiversity, but the set of their ecosystem services is much wider. An important place among them is occupied by socio-cultural ecosystem services.

The intervention of the external forces and the loss of control over natural processes during the exploitation of quarries can cause significant ecological and economic consequences for such objects. The purpose of this study is to analyse the impact of military activity on the state and functional characteristics of the Ozersky quarry in the Kyiv region. The Ozersky clay deposit is located in the Buchansky district 30 km away from Kyiv. The license for its operation (clay and sand extraction) was obtained by the company "Slobozhanska Building Ceramics". The company built and in 2009 put into operation the plant "SBK-Ozera" producing ceramic blocks and ordinary bricks. The plant received raw materials for the production of such building materials from the nearby Ozersky quarry, the area of which reached 40 hectares.

On February 22, 2022, the plant, as well as the territory of the district, was occupied by the RF troops and ceased its activities. After the liberation of Kyiv region from the occupiers at the end of March 2022, it turned out that the plant and quarry equipment had been looted and mutilated.

On February 26, 2022, the forced detonation of the Kozarovytska Dam, which separated the Irpin River from the Kyiv Reservoir, caused the flooding of a large part of the Irpin Valley, which in turn contributed to an increase in the level of groundwater in the area of the quarry's location. This area is the feeding zone of watercourses flowing into Irpin, therefore the level of underground water in this territory is relatively high. All these circumstances, as well as the state of war, power outages, lack of equipment did not allow the plant and the quarry to resume operation after the liberation of the region from the occupiers at the end of March 2022. The pit and the lower ledges of the quarry began to fill with water, as a result of which a significant lake-type standing body of water was formed. The analysis of satellite images shows a significant increase in the area of the reservoir in the quarry in April 2022 compared to the data of 2021. Currently, in the quarry, which has significant clay reserves, only the sand accumulated in the dumps earlier can be extracted.

The analysis of threats and risks affecting the restoration of the quarry shows that the main threats are hydrological. These threats are associated with an increase in the groundwater level in the left-bank water intake area of the Irpin River as a result of the dam being blown up. Thus, the costs of pumping water from the quarry site, where clay was mined, have increased significantly, and the calculations of the necessary investments to restore the productive operation of the quarry and the plant associated with it indicate the problem of economic feasibility.

However, the survey of the quarry indicates a slow but steady succession of this anthropogenic ecosystem. The slopes of the quarry are overgrown with pioneer species, in places where there is no work of heavy machinery, there are areas with woody species dominated by *Robinia pseudoacacia*, white poplar (*Populus alba*), black poplar (*Populus nigra*) and some other trees and shrub species.