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CONTEMPORARY LEVEL OF SALT POLLUTION OF PROLETARIAN AND VESELOVSK RESERVOIRS

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Characteristic pollutants of water in Proletarian and Veselovski Reservoirs are magnesium, sulfates and chlorides which annually meet in 50% and more water samples due to analysis of long-term information of Roshydromet, including the modern period (2001-2013). Thus their concentrations considerably exceed maximum permissible concentration, reach the level of high and extremely high pollution, and cause high level of mineralization. The highest quantity of salts and level of mineralization are observed in the Proletarsk reservoir now. It can be explained by natural particularities of the territory. Total water pollution is estimated as dirty and even very dirty with tendency of growth of pollution in the majority of sections of reservoirs. Salt pollution predominates in total water pollution.

Keywords: *Proletarian and Veselovski Reservoirs, salt composition of waters, mineralization, pollution.*

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SEISMICITY OF THE CRIMEAN -CAUCASIAN REGION (BASED ON THE RESULTS OF INSTRUMENTAL OBSERVATIONS OF HYDRODYNAMIC AND SEISMIC PROCESSES)

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Following prolonged collaboration between the IPE RAS and the VSEGINGEO MNR the results of instrumental observations over hydrodynamic and seismic processes obtained in the Geophysical Observatory in Northern Caucasus (Elbrus volcanic area) and in the dedicated observation points located in the European part of Russia are presented. The results of long-term instrumental observations were analyzed simultaneously with specific estimations of principal factors allowing to better understand development of geodynamic reconstructions and to evaluate conditions in complex geological environment of the earthquake-prone region with respect to possible practical applications for prediction of multiscale seismic processes.

Keywords: *geodynamic processes, monitoring of geological deformation, earthquake precursors, ULF magnetic field variations, prediction of seismic hazard.*

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HEAVY METALS IN LANDSCAPE SOILS OF ROSTOV-ON-DON

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The content and main features of distribution of heavy metals in the soils from different functional zones have been analyzed. The accumulation of heavy metals in the soils of industrial and settlement urban landscapes has been noted. The long-term trends in accumulation of heavy metals in topsoils were identified. The soil pollution level was assessed as acceptable and moderately dangerous.

Keywords: *heavy metals, functional zones, sources of pollution, geochemical associations and anomalies, total pollution index.*

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