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## E. N. Kuntsevich, A. I. Kavrus, A. M. Romanova (BSTU, Minsk) THE CONTINUING OPERATION OF THE LANDFILL NEAR BORISOV AS A THREAT TO SUSTAINABLE LAND-USE OF THE AREA

The article is dedicated to the problem of sustainable land-use management, waste recycling, and running municipal waste landfill. In the Republic of Belarus, volume of waste, including municipal solid waste (MSW), increases every year. MSW includes municipal waste and industrial wastes, removal of which is organized by local executive and administrative bodies. And potential danger of the landfill near Borisov (Minsk Region, Belarus) is of special interest for our investigation.

Standard chemical analysis of soil and underground waters in this place showed that the values of the contents of almost all monitored components significantly exceed the MPC (maximum permissible concentration): chloride - to 7.5 – 9 MPC, total iron – from 4 to 38 MPC, ammonium nitrogen – up to 24 MPC, oil products – up to 4 MPC, detergents – to 1.32 MPC, the lead – up to 1.7 MPC, and cadmium – up to 20 MPC at down water. The results of geochemical analysis of soil showed that the soil content of most microelements, except manganese, in most of the sampling points exceeds the MPC. Thus, the landfill is a source of intensive pollution of soil, surface water and groundwater.

The territory of this landfill needs remediation and this solution involves several stages. The first is the actual closure of the landfill, with the cessation of waste removal on him. The second is remediation and reuse of a degraded and dangerous area. The third is the creation of impervious screen, construction of hydraulic, gas-drainage structures and other environmental facilities. The fourth is the application of technological layers and potentially fertile soils. And the final stage is restoration of fertility and the renewal of the biota.

The current state of this landfill needs to be improved through creation of a forestry object for reclamation. This option will require a smaller financial outlay on its construction than presented above examples of landfills and at the same time it will contribute to dissolution of environmental pollution, using of land for recreation activities and a favorable aesthetic impact. This approach will reduce the threat to ecological condition of the adjacent area.