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Delineation of groundwater bodies and design of a monitoring network in the Danube Prut and Black Sea River Basin District in Moldova under EUWI+

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The EU-funded program European Water Initiative Plus for Eastern Partnership Countries (EUWI+), which is the biggest commitment of the EU to the water sector in the EaP countries, helps Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Ukraine to bring their legislation closer to EU policy in the field of water management, as identified by the EU Water Framework Directive (WFD), with a main focus on the management of transboundary river basins. It supports the development and implementation of pilot river basin management plans, building on the improved policy framework and ensuring a strong participation of local stakeholders.

Project funding is provided by the European Commission (DG NEAR), the EU support program for improved cooperation in the eastern EU neighborhood region and the EU Water Initiative Plus (EUWI+). On a national level, financial support comes from the Austrian Development Agency, the Austrian Federal Ministry for Sustainability and Tourism as well as from the French Office International de l'Eau. Up to 2020, management plans for selected river basins and transboundary rivers will be implemented under the leadership of a European project consortium headed by the Environment Agency Austria.

In the Republic of Moldova the River Basin Management Plan for the Moldovan part of the Danube-Prut and Black Sea River Basin District was elaborated by the Institute of Ecology and Geography in accordance with the WFD and the Water Law of the Republic of Moldova no. 272 of 23.11.2011. This management plan needed a review and update for approval and its implementation into practice.

The presented study comprises a review and an update of the existing delineation and characterization of groundwater bodies (GWBs) in the Danube-Prut and Black Sea River Basin (DPBSRB) of the Republic of Moldova as well as a review of the current groundwater monitoring design. The GWBs are the management units under the WFD and all further implementation steps (risk and status assessment, programs of measures) which regard to groundwater are linked to these GWBs.

Extensive information, e.g. on the geological structure, the hydrogeological conditions, lithology, flow directions and the human pressures on the aquifers in the DPBSRB, has been collected,

generalized and analyzed. Within the area of the DPBSRB in total eleven GWBs were identified, covering all aquifers which are relevant for all current and future legitimate uses and functions and relevant for groundwater associated or dependent aquatic and terrestrial ecosystems.

The groundwater monitoring design both for quantity and quality was reviewed including the monitoring network, frequency, parameters, use of monitoring data, responsibilities and data management. Based on that results, concrete improvements of the monitoring network within the EUWI+ project are planned.