













formulas can be used as a simple tool for immediate DREC assessment. Such procedure is very useful for DREC approximation, requiring only a minimum amount of fundamental information, i.e. basic soil hydrology data and parameters of the drainage system.

Detailed investigation of the DREC concept in steady-state approach is currently being carried out at CULS Prague, Faculty of Environmental Sciences, Department of Land Use and Improvement, in the framework of a drainage research project, financed by the Ministry of Agriculture of the Czech Republic. Partial results of the research have confirmed that in the process of determining DREC, the Hooghoudt Equation for steady-state flow can be used. This in turn can be useful for designing drainage system parameters, with estimation of DREC effect in any type of drainage flow.

Drainage systems with high DREC capacity can significantly reduce negative impact of hydrological extremes, e.g. floods and waterlogging, especially with reference to the current and future climate dynamics conditions. DREC is an important innovation in the field of drainage hydrology. As an integral part of a drainage system, DREC can significantly contribute to agricultural land and water regime protection.

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### 4. References

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