

PROJECT PROFILE

Title	Reallabor Retention Soil Filter: Investigations of the transport behavior of particulate pollutants in artificial soil filters
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<p>The discharge of combined sewage (wastewater and stormwater) into rivers and streams can lead to environmental pollution due to the particulate pollutants contained in the combined sewage. The additional treatment of combined sewage by a retention soil filter is intended to retain such pollutants. In order to show which pollutants accumulate in filter material, drainage water and vegetation and how the transport behavior of these pollutants in the soil filter looks like, retention soil filters within semi-technical pilot plants will be fed with real mixed water from the wastewater treatment plant Aachen-Soers and subsequently analyzed in this project. With the analysis of the three matrices (water, sediment, biomass), an interdisciplinary research approach is chosen, which represents a unique real laboratory with high external effectiveness due to the analogy of the test facility to the largest retention soil filter in Germany at the wastewater treatment plant Aachen-Soers, which will go into regular operation in 2023. In addition to the accumulation in different sediment layers and the vegetation, the complete consideration of the pollutant balance is closed via the analysis of the drainage water. The transport behavior of these pollutants in the retention soil filter can thus be reproduced and additionally transferred to other areas of the aquatic environment in the follow-up.</p>	