



Microplastic particle removal from the water cycle (OEMP)

Context

The increasing use of plastic components in all areas of life entails the undesired immission of these substances into the aquatic environment. Small plastic particles (microplastic) discharged from domestic wastewater and urban areas can get into the water cycle.

Objectives

The project is dedicated to developing materials and methods which will help to retain the entry of microplastic particles (MP) emerging from diverse pathways of the urban water cycle. In addition, simple and natural systems such as soil filters are to be analysed with regard to their retention efficiency.

Activities

- Installation of two pilot pile cloth media filtration unit plants at WWTP Berlin-Ruhleben
- Reduction of microplastic from secondary effluent
- Operation and samplings at the pilot plant with particular interest on particles with a size below 100 µm by using a particle counter
- Analysing microplastic concentrations in different Berlin wastewater pathways



Duration: 4/2016 – 3/2018

Project Volume: 1.5 M€ (70 k€ KWB)

Partners
GKD – Gebr. Kufferath AG, Technische Universität Berlin (coordination), Bundesanstalt für Materialprüfung, Umweltbundesamt, INVENT Umwelt- und Verfahrenstechnik, Kompetenzzentrum Wasser Berlin

Financial Support



Federal Ministry of Education and Research



Berliner Wasserbetriebe

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