

Persistent organic substances in bank filtration (TRACE)

Persistent organic substances used in household, agriculture and industry are found in surface waters world wide. Amongst others they comprise chelating agents, perfluorinated compounds (PFCs) and pesticides. Knowledge is limited about the elimination of some of these substances during drinking water production via bank filtration and artificial recharge.

Aim of the project:

To assess the risk occurring from selected organic trace substances for drinking water production via bank filtration and artificial recharge on the basis of their occurrence in surface waters and their fate in the subsurface.

Work packages:

- comprehensive literature review on occurrence and elimination via underground passage for
 - chelating agents like emerging EDTA-substitutes
 - perfluorinated compounds (PFCs)
 - the pesticides glyphosate and isoproturon known to occur in surface waters of the Berlin region.
- technical scale experiments with selected trace substances (eg. glyphosate) simulating underground passage at the Centre for Aquatic Simulation of the Federal Environmental Agency in Berlin ("Versuchsfeld Marienfelde", UBA),
- surface water and groundwater monitoring for selected substances (glyphosate and isoproturone).



Picture 1 Artificial recharge pond at Spandau waterworks (Berlin)



Picture 2 Enclosures for technical scale experiments on the UBA's Center for Aquatic Simulations, Berlin

Project sponsored by



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