



Remove micropollutants with granulated activated carbon

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Topics: Wastewater | Pollutants

Currently, the first Swiss wastewater treatment plants are being upgraded with an additional treatment stage for the removal of micropollutants using granulated activated carbon (GAC), including the WWTP at Muri. Eawag provided technical support for the design of the installation and is also investigating unresolved issues.

Since the revised Swiss Waters Protection Ordinance came into force at the beginning of 2016, some Swiss wastewater treatment plants (WWTP) must be upgraded with an additional treatment stage to remove micropollutants from wastewater. One possible process for this is filtration with granulated activated carbon (GAC), for which the aquatic research institute Eawag has produced a planning aid together with the Swiss Wastewater and Water Protection Experts (VSA).

Together with partners, Eawag also provided technical support for the upgrading of the first WWTPs with this process, including the WWTP at Muri. As researchers and engineers explain in an article just published in the journal *Aqua & Gas*, they were able to show during a one-year pilot phase that the GAC process and the two activated carbons tested are well-suited for the wastewater in Muri and meet the specified treatment performance.

They also investigated how the four GAC filter cells planned for the Muri WWTP must be operated in order to be able to use them for as long as possible, thereby saving costs. For this purpose, a program was used to simulate the operation of the plant for the next 20 years. A parallel connection of the filters proved to be most effective.

Rain worsens the cleaning process


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neuen Reinigungsstufe Mikrover

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unreinigungen aus dem Abwasser entfernt. Die GAK-Filtration bietet viele Vor
teile und wird nicht nur verfahrenstechnisch, sondern auch ästhetisch optim
al in die bestehenden Strukturen der ARA Muri eingebunden. Zur sicheren Umse
tzung wurden in einer Pilotierung wichtige Fragen beantwortet, insbesondere
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Löwenberg, J.; Böhler, M.; Strebel, P. (2022) Neue Reinigungsstufe für die ARA Muri, Aqua &
Gas, 102(12), 74-79, Institutional Repository

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Aqua & Gas article

Planning aid

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Funding / Partnerships

Eawag Wastewater treatment plants (WWTP) Muri (WWTP)

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<https://www.eawag.ch/en/info/portal/news/news-archive/archive-detail/remove-micropollutants-with-granulated-activated-carbon>