
# Yellow-black-grey makes many things possible

November 17, 2022 | Andri Bryner
Topics: Wastewater | Ecosystems | Pollutants | Water & Development

**No tiger duck and no football club - the formula "yellow-black-grey" refers to the separation of wastewater streams at their source, i.e. at the toilet, washbasin or shower. This opens up new possibilities and saves resources. On the occasion of World Toilet Day on 19 November, a series of Eawag fact sheets shows how this can be done.**

Greywater is wastewater with low levels of contamination, for example from the shower. It can be used as a source of heat and - treated on site - also as service water, for example for irrigation or flushing toilets. Urine, the yellow water, on the other hand, contains many nutrients, especially phosphorus. The world's phosphorus reserves will not last forever and its extraction leads to environmental damage in the deposits and elsewhere. So what could be more obvious than to rescue the valuable substances from the "pee" and produce fertiliser from it? And finally, black water: this is toilet flush water with faeces, which most people prefer to make disappear very quickly. In our country, it is therefore diluted with a lot of clean water and washed underground. Elsewhere, it is sunk into pits or dumped into the nearest river. Yet the faeces contain a lot of energy; our ancestors knew that when they used cow dung for heating. So why not modernise the age-old process and produce hygienic fuel pellets from the unloved faecal sludge?

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To mark World Toilet Day on 19 November 2022, Eawag has completed a series of three practical fact sheets: one on each of the three topics "urine source separation", "grey water" and "black water". They show what speaks for separate collection and treatment of grey, yellow and black, but also where the challenges lie in order not to create new problems.

Available in D, E and F at Publications for practitioners and via the project website for the Waterhub in the Nest experimental building.

Cover picture: In the Water Hub in Empa and Eawag's research and innovation building NEST, a distinction is made not only between yellow and black, but also between light and dark grey. (Photo: Eawag)

## Related Links

Focus page "Decentralised resource recovery from wastewater"


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SF1 - Einstein (in German only) «Kann die Forschung unser Wasser retten?»
with a visit to the Eawag/Empa Water Hub.

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