



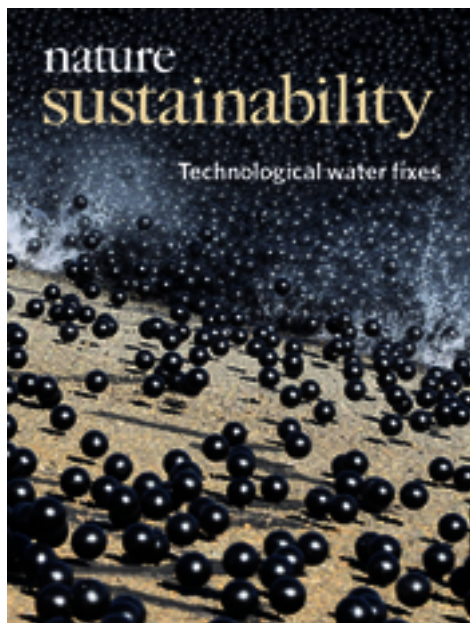
Throwing shade on shade balls

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Black plastic balls, which aim to reduce evaporation losses from open-air reservoirs under drought conditions, are not quite as efficient as previously assumed. Considerable quantities of water are already used in their production.

Eawag researcher Dr. Erfan Haghighi has taken a close look at the water footprint of the shade balls together with his colleagues from Imperial College London and University of Twente. The journal *Nature Sustainability* has just published the results of the study supported by the Swiss National Science Foundation and even dedicated the front cover to the topic. In the case of Los Angeles reservoir in Sylmar, researchers have calculated that thanks to the spheres, around 1.2 million cubic meters of water would evaporate less each year. However, depending on the wall thickness of the plastic, the production of the spheres, which measure around ten centimetres in diameter, required up to 2.9 million cubic meters of water. According to this, the balls must be used for at least two and a half years to have a sustainable effect. Erfan Haghighi is not surprised: "Even seemingly simple solutions to water problems must undergo an integral sustainability analysis", he says.



The water footprint of water conservation using shade balls in California ; Erfan Haghighi et al., Nature Sustainability, 1, pages 358–360 (2018): [DOI: 10.1038/s41893-018-0092-2](https://doi.org/10.1038/s41893-018-0092-2)

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