

### Scottish Water aims to reduce the impact of plastic on the environment

Use of plastics worldwide has become commonplace with 300 million tonnes of plastic produced in 2015<sup>1</sup>. The unintended consequence is that plastic waste has become ubiquitous in the environment. Inappropriate disposal of plastic items is a societal challenge and waste water systems have been identified as a pathway for waste plastics to enter the water environment.

Scottish Water collects and treats more than 900 million litres of waste water every day from households, businesses, industry and drainage from roads and roofs. From a household perspective, the waste water system was not designed to cope with anything other than the 3Ps (pee, poo and (toilet) paper). Households should only put the 3Ps down the toilet.

In 2017 there were around 35,000 blockages within the public waste water network, over 80% of which were due to inappropriate disposal of items<sup>2</sup>. These 35,000 blockages cost around £7 million to clear. Reducing inappropriate disposal to the waste water network will reduce the number of blockages and thus help reduce environmental pollution and keep customer charges low.

Plastics come into the waste water system from inappropriate disposal of wet wipes, sanitary towels and other sanitary care products being flushed down the toilet and there are subsequent effects on our networks and waste water treatment works. As well as these large items, microplastics (plastic between 5 millimetres and 100 nanometres in size) can enter our waste water system from clothes washing, road run-off (containing wear from vehicle tyres and road paint), and from the breakdown of larger plastic items.

The waste water system includes screens that removed 9,500 tonnes of grit and screenings in 2017. These screens remove a portion of the plastic waste, but not all. Those plastics, of any size, that are not removed can end up in the environment. Scottish Water considers prevention through source control to be the best solution for plastics and microplastics. Source control includes customer education & awareness campaigns, influencing policy, product labelling, improved product design and reducing the reliance on single use plastic items.

We welcome the introduction of a UK ban on microbeads in cosmetic and personal care products, the proposed Scottish ban on plastic cotton bud sticks and the recent introduction of Water UK "Fine to Flush" standard. We will work with stakeholders at national and European levels, to promote effective labelling of non-flushable products, as well as product substitution and the banning of single use plastics where appropriate.

Scottish Water will continue to run campaigns<sup>3</sup> to raise public awareness of the problems caused to the waste water network, treatment works and to the environment by inappropriate disposal of plastic items. We will review our use of materials to reduce the use of single use plastic items throughout the organisation and work on improving recycling of these.

Scottish Water is working with [UK Water Industry Research Limited](#) and academic institutions in actively researching plastics to more fully understand the sources of, impacts from and behaviours of microplastics in our water and waste water systems. This will include consideration of appropriate analytical methods to assess the type, size and quantity of microplastics. We will look to undertake further research and development where necessary and will make investment to improve our systems where this is demonstrated to deliver benefits for our customers.

1 United Nations Environment Programme, 2017. UNEP estimates that on current trends by 2050 33 billion tonnes of plastic will be produced annually.  
2 For example: condoms, cotton buds, nappies, sanitary towels/panty liners and their backing strips, tampons and tampon applicators, toilet fresheners, wet wipes etc.  
3 Keep the Cycle Running campaign and Your Water Your Life campaign

