

Nitrogen and nutrients in the Solent

Overview

- Our wastewater treatment systems already greatly reduce nitrogen and other nutrients in the Solent.
- All of our 11 sites that release into the Solent are currently beating their environmental permits for nutrient removal.
- The vast majority of nutrients in the Solent come from agricultural run-off and other diffuse sources.
- Treated wastewater releases account for about 5% of the overall total.
- Our business plan for the next five years has already been finalised with our regulator Ofwat – however, we are looking at ways of working with partners to further reduce nutrients.
- The big wins will be found elsewhere – like, for example, incentivising farms to change land management practices.



Nitrogen in the Solent

Nitrogen removal by wastewater treatment works discharging into the Solent – key facts



from Southern Water

1



Nitrogen removal treatment is conducted at 11 wastewater treatment works operated by Southern Water, serving all major sewerage catchments releasing into the Solent

2



More than 1.1 million people from these catchments are provided with nitrogen removal treatment. This is more than all the other UK water companies combined

3



Since the introduction of the release permit for nitrogen, Southern Water has **over performed** against every nitrogen release permit for every site in every year

4

In 2019, just over **12000 kg/day nitrogen** is received from crude sewage by the 11 wastewater treatment works that provide nitrogen removal treatment

12,000 kg/day



5



1,900 kg/day

Under 1900 kg/day is released in the final effluent from the 11 wastewater treatment works, **1000 kg/day less than the maximum permitted**

6

Despite the increased nitrogen load due to population growth, nitrogen released from final effluent has

decreased considerably and continuously



from Southern Water

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Nitrogen removal by wastewater treatment works releasing into the Solent



The Solent

Isle of Wight

