

Stoke Wastewater Pumping Station

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from
Southern Water 

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Budds Farm Wastewater Treatment Works

- Portsmouth's wastewater flows to Eastney and is then pumped 8km to Budds Farm for treatment.
 - Budds Farm receives flows from 52 pumping stations.
 - Flows from Hayling Island's 15 pumping stations are pumped to Budds Farm from Stoke pumping station via a pipe under the harbour.
 - Treated water returns to Eastney, via the same pipe, and pumped out of the 5.7km to Long Sea Outfall (LSO).
 - During heavy rain, stormwater is diverted through the LSO along with treated flows from Budds Farm.
 - To increase the outfall's capacity and minimise impact on the harbour, we release treated wastewater into the north of the harbour from Budds Farm.
 - If the outfall reaches capacity, excess flows go to storm tanks at Fort Cumberland and Budds Farm. These can store 47 million litres of stormwater – enough to fill 18 Olympic-sized swimming pools.
 - If the storm tanks fill up, we release excess flows into the harbour through outfalls to prevent flooding.
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Releases into Langstone Harbour

- Southern Water has nine outfalls connected to the wastewater network which release directly or indirectly into Langstone Harbour to prevent flooding in the catchment.
 - These are permitted by the Environment Agency.
 - During dry weather there are no releases into the harbour.
 - During wet weather, we release excess stormwater into the harbour to protect homes and businesses from flooding.
 - Such releases will always be required to prevent flooding. We've improved their quality and reduced their frequency.
 - Since January this year there have been 346 releases on 177 days.
 - All of these were in line with our environmental permits.
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Stoke Wastewater Pumping Station (WPS)

- The incident at Stoke WPS, on Sept 15, 2018, happened after a build up of wet wipes and sanitary products blocked the pumping station.
- This caused wastewater to back up in the sewer and seep out through two manholes into a ditch that leads to the harbour.
- We let the Environment Agency and Harbour Board know and sent notifications to harbour users via our Beachbuoy notification system.
- We deployed a fleet of more than 20 tankers to minimise the flows and allow the team on site to clear the blockage and get the site running.



Improvements at Stoke WPS

Since the incident, we have:

- Installed a new pump (1 of 2) on site
- Put in sewer level monitoring equipment with telemetry direct to the 24hr control centre
- Enhanced and updated our emergency plan

Improvements approved for delivery in our next five-year investment period – 2020-2025:

- Replacing the second pump and adding a third to provide extra resilience
- Installing a fixed generator to provide power to site in the event of mains power failure



Enforcement Undertaking

An enforcement undertaking is a voluntary offer by an offender to put right the effects of their offending, its impact on third parties and to make sure it cannot happen again.

Application lodged with the Environment Agency:

- £800k refurbishment of pumping station (new pumps, new electrical and control panel and new standby generator)
- 'Think Pollution' training for staff to improve our response and escalation
- £75k grant to Blue to re-introduce oysters into Langstone Harbour
 - Returning the seabed to a favourable condition for native oysters by the addition of cultch (recycled shell material).
 - Restocking of at least 250,000 oysters to increase the abundance and density.
 - Monitoring the establishment of oyster reefs and drivers influencing success/failure.
 - Monitoring of biodiversity and water quality around restored beds to quantify benefits of oysters.



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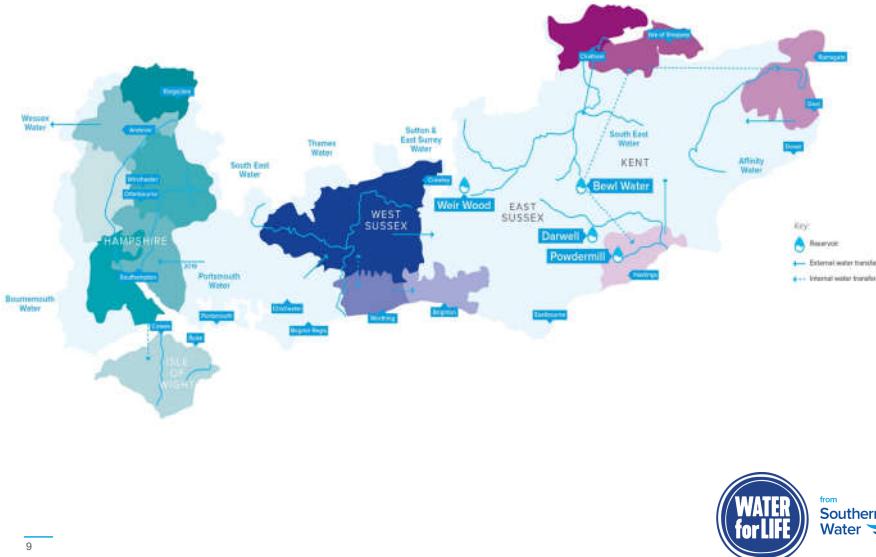


Pollution Reduction Programme

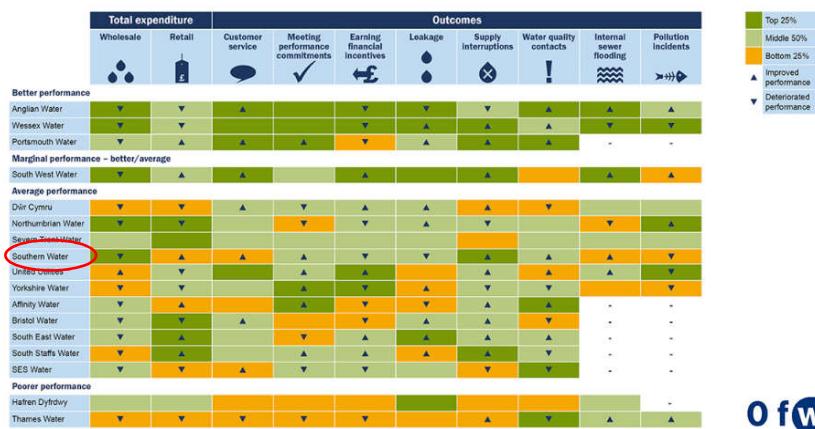
Nick Mills



Our supply area



Ofwat's assessment of water companies – 2018/19



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Transformation programme

- Restructure of Executive team and Board
- New Director of Risk and Compliance
- Reinforcement of industry-standard ‘three lines of defence’ model for regulatory reporting
- Increased reporting to Ofwat
- Strengthened whistle-blowing policies supported by independent platform
- Enhanced compliance across all wastewater treatment works including compulsory training for all relevant colleagues
- Refreshed company vision, values and purpose
- More than £100m invested in improved IT systems/processes and £26m invested in wastewater assets



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What is pollution?

Definition: the presence or introduction into the environment of a substance which has harmful or poisonous effects



Common Incident Classification Scheme (CICS)

- Impact on the environment 14
- Impacts on ecology 15
- Impact to nature conservation sites and species 17
- Impact on physical habitat 19
- Impact on fish stocks 20
- Environment Management (air, land and water) incidents 23
- Impact on air 26
- Guidance when assessing impact from noise 30
- Guidance when assessing impact from odour 32
- Impact on land 34
- Impact on water 37
- Impact on water quality 38
- Impact on potable abstractions 41
- Impact on ecology (water) 42
- Impact on human health 43
- Impact on amenity value 45
- Impact on agriculture/commerce 47

For each functional scheme, the environmental impact categorisation, is split into four categories:

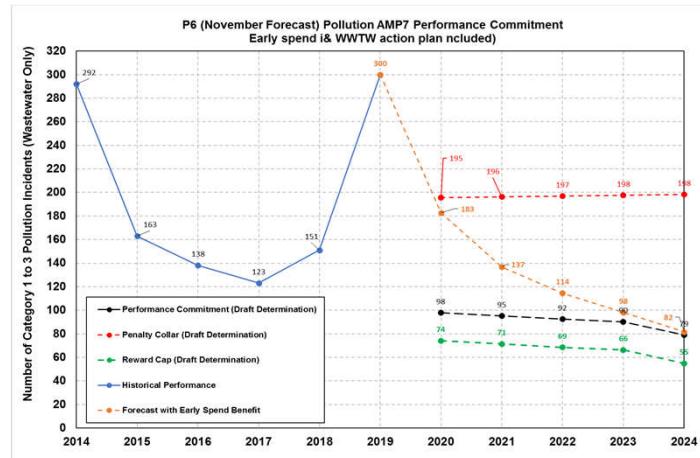
- Category 1 – major, serious, persistent and/or extensive impact or effect on the environment, people and/or property
- Category 2 – significant impact or effect on the environment, people and/or property
- Category 3 – minor or minimal impact or effect on the environment, people and/or property
- Category 4 – substantiated incident with no impact.

Assign the impact category corresponding to the highest criteria selected. The potential impact category assigned informs the response time required (refer to [incident management service levels](#)).



Our recent performance

Our pollutions have increased since 2018, we have ambitious targets for the next five year investment period that require rapid improvement plans



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The key activities driving improvement

	Activity description	Current \ target	Target date
Staff & Customer Participation	Think Pollution Training (no. of people trained)	373 \ 820	Mar 20
	Pilot blockage reduction campaign (Havant & Hayling Island)	-	Feb 20
Improving Resilience of Assets & Processes	Site Continuity Plans WPS (no. verified)	159 \ 350	Apr 20
	Health Checks (no. of sites)	342 \ 400	Dec 19
	Immediate & High Action closure (% closed \ target)	87.8% \ 90%	average
	WPS Auto resets (sites with completed installs)	26 \ 300	Apr 20
	Generator resilience (mains failure test, service and signal install)	2 \ 160	Apr 20
	Standby system checks (UPS \ Batteries \ PLCs)	4 \ 79	Apr 20
Trusted Monitoring & Analysis	Air Circuit Breakers checks (no of sites)	35 \ 250	Jan 20
	Underload alarms for screw pumps and aerators (no. installed)	35 \ 125	Feb 20
	New spills system (ASPIRE)	Operational	Dec 19
Smart Networks / Fast & Effective Responses	Alarm Transformation (no of WPS sites)	0 \ 300	Apr 20
	Waste Network Coordinator Shift (8 FTE)	6 \ 8	Jan 20
	High pollution risk manholes targeted	23 \ 2,000	Apr 20

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Blockages campaign

Samuel Underwood

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Plans for a targeted Keep it Clear campaign

We plan to run a targeted Keep it Clear campaign in Havant / Hayling Island in the new year.

It was postponed from this year as part of a review of our customer engagement techniques.

It will include newspaper and radio ads and targeted ads on Google Home / Amazon Alexa devices.

We're keen to work with the council to help us spread the message via its channels and at local events.

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Any questions?



from
Southern Water 

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