



FAQs

Stodmarsh

Southern Water and nutrient removal from Wastewater

Is Southern Water currently open to agreements that you will increase the nitrogen or phosphate removal rate at the receiving Wastewater Treatment Works beyond consented levels, to provide mitigation for housing developments in the area?

Within the existing environmental and financial regulatory framework of the water industry, this is not feasible. Southern Water operates its Wastewater Treatment Works (WWTWs) in accordance with permitted discharge and quality limits which are issued by, monitored and reported to the Environment Agency. Our WWTWs are designed, constructed and upgraded when necessary to achieve the permit limits in force at the time and to any changes to these during the lifespan of the WWTW. The Environment Agency's Water Industry National Environment Programme (WINEP) investigation scope has agreed the water company assets that are to be part of the investigation into impacts on Stodmarsh designated sites (June 2020). No further investment is needed to treat wastewater to a tighter nitrogen limit at any of the WWTWs in the Stour area in the Business Plan 2020-2025.

In order to voluntarily increase nitrogen or phosphate (nutrient) removal beyond a WWTW's existing permit, or to introduce nutrient removal at a WWTW where it does not presently exist, significant investment would be required, particularly in the latter case. This would be financed through our General Charges Income (GCI) collected from existing customers and promoted through the Water Industry National Environment Programme (WINEP) which we agree with NE and the EA at the start of each AMP (Asset Management Period). Southern Water would need to seek the approval of Ofwat, the water industry's economic regulator, through the 5 yearly price review process, to use GCI to invest in upgrades to our WWTWs to meet tighter discharge standards and this would require customer bills to increase to pay for the improvements required. It is very unlikely that it would be possible to justify this cost, and pass it on to customers, when investigation work carried out by our environmental regulator has already shown that this is not currently necessary, and where our economic regulator is also looking to protect the interests of customers, and ensure operational efficiency.

There is currently no mechanism for accepting developer contributions to improve the quality of discharges from our WWTWs



Nutrients include both Nitrogen (N) and Phosphorous (P) and WWTWs tend to have either a P or N permit, rather than both. What is the difference?

Environmental permits for discharges from WWTWs are determined based on statutory water quality standards and objectives. These standards and objectives differ depending on whether the receiving watercourse is inland or coastal and also depending on its quality, amenity and whether there are any protected sites located nearby.

For inland receiving water, the assessment will take into account the immediate receiving water and main receiving river. In general, P is believed to be the primary limiting nutrient for UK inland waters, hence for inland waters discharges only P removal is required. There are exceptional cases, but these will be linked to specific factors.

What is the capacity of works? Is there enough capacity for the proposed development?

Growth within each WWTW catchment is monitored through population forecasts, as well as through Local Plan housing allocations, and monitoring of local authorities housing supply and delivery. Where this monitoring identifies a risk that capacity at a WWTW is likely to be met within the next 5 year investment period, known as an Asset Management Programme (AMP), we would make a case in our business plan for new infrastructure to support the projected growth in population. Once our business plan is agreed, we can then work towards delivering the required additional capacity to accommodate projected growth.

The Environment Agency is the water industry's environmental regulator and defines the environmental permits and the associated effluent discharge standards that water companies are required to meet. These permits are designed to protect the environment and ensure that water quality objectives are met.

Southern Water therefore operates its WWTWs in accordance with environmental permits issued and enforced by the Environment Agency. The permits set the maximum volume of treated wastewater that the company is permitted to recycle to the environment (in terms of Dry Weather Flow, DWF). They also define the standards of treatment that must be met in order to protect water quality objectives.

If the future release of treated wastewater at a WWTW is anticipated to exceed the maximum allowed by the environmental permit (as a result of new development), Southern Water could apply to the Environment Agency for a new or amended permit. This would increase the volumetric permit headroom above that which is currently available. The Environment Agency would normally permit increased flows provided the treatment standards are tightened so that the total load (eg of nitrogen or phosphates) to the environment is not increased. This is in line with the "no deterioration" principle.

Fundamentally wastewater treatment capacity is not a constraint to future new development even if investment requirements are significant. Southern Water has a statutory obligation to find solutions and provide infrastructure to serve new development. Local Plan periods generally run for 15 years so there are repeated opportunities through the water industry's five yearly price review process to investigate and implement solutions.

In the absence of a Nitrogen or Phosphate permit level, are you able to provide details of the nitrogen/phosphate effluent levels for WWTW?

Where there is no Nitrogen (N) or Phosphorous (P) permit in place, Southern Water does not monitor N or P levels in the final effluent discharging from that WWTW. It is therefore not possible to state what levels of N or P are in the discharges from a WWTW that has no N or P permit.

Are you able to provide advice as to the mitigation of Phosphate in our development?

Unfortunately not, Natural England have devised a methodology to calculate how much mitigation is needed for a particular development in their document 'Advice on Nutrient Neutrality for New Development in the Stour Catchment in Relation to Stodmarsh Designated Sites - For Local Planning Authorities July 2020' they also offer a paid for service or it would be best to speak to the Local Planning Authority about what needs to be included in your planning submission.

We are however happy to work with relevant parties on any mitigation projects that might be identified for example the creation of wetlands fed by our WWTW discharges.

What are the current N and P permit levels at WWTWs in the Stour area?

Please see the following table;

Table A 1.2 Waste Water Treatment Works covered by this Guidance			
Southern Water Waste Water Treatment Works Continuous Discharges considered as part of WINEP investigation * (waterbody/ catchment into which it discharges in brackets)	TP Limit current (planned permit by 2024 in brackets)	TN Limit current	Population Equivalent (2020)
Ashford (Bybrook)WwTW (Stour -Ashford Wye)	0.5mg/l OSM**	None	115,149
Canterbury WwTW (Stour A2 to West Stourmouth)	2mg/l	None	72,498
Charing Wwtw (Upper Great Stour)	1mg/l (OSM only) (0.5 mg/l by 2024)	None	2,057
Chartham Wwtw (Stour Wye –A2)	None	None	6,966
Chilham (Stour Wye- A2)	None	None	946
Dambridge (Wingham)	2mg/l (0.25 mg/l by 2024)	None	21,347
Lenham Wwtw (Upper Great Stour)	1mg/l (OSM only) (0.5 mg/l by 2024)	None	3,206
May St (Herne Bay) WwTW (Oyster coast brooks)	2 mg/l (0.3 mg/l by 2024)	None	43,025
Newnham valley WwTW (Little Stour)	None (1mg/l by 2024)	None	7,372
Sellindge WwTW (East Stour)	1mg/l OSM annual mean (0.5 mg/l by 2024)	None	5,443
Westbere WwTW (Stour A2 to West Stourmouth)	None	None	6,503
Wye (Stour –Ashford Wye)	None	None	2,135
Good intent cottages WwTW	None	None	15
Nats Lane Brook WwTW	None	None	308
Westwell WwTW	None	None	216

*Natural England have chosen to exclude Minster WwTW from this advice as it is likely that this works will be excluded from the WINEP investigation. ** This works has an UWWTD annual mean figure of 1mg/l but the OSM figure is sufficiently certain to be used for planning purposes