

Deal bathing water quality and Southern Water's investigations

Clean Rivers and Seas Task Force

The Clean Rivers and Seas Task Force was established in November 2021 and is a dedicated team that is central to Southern Water's drive towards significantly reducing the use of storm overflows by 2030, and managing catchment flows.

The establishment of the Task Force indicated Southern Water's commitment to ambitious targets and is a highly important workstream within the business.

The Task Force initially launched six Pathfinder projects, where we trial solutions in a community to reduce local storm overflows. We believe the best way to do this is to slow the amount of surface water entering our sewer and prevent groundwater infiltration.

Deal Pathfinder

Deal was chosen as one of the six Pathfinder areas and you can find out more here: [Pathfinder: Deal, Kent - Southern Water](#).

Below are some of the successful Deal case studies so far due to our Pathfinder initiative.

- Deal – [Increasing roadside drainage](#)
- Deal – [Expanding the surface water system](#)
- Deal – [Installing smart water butt and optimising Golf Road WPS](#)

Water quality – what is Southern Water's role?

We recognise the key role we have in trying to improve bathing water quality. We are a key custodian alongside the Environment Agency, Internal Drainage Board and Highways authorities, with local authorities responsible for public health.

It's vital we work with local partners to tackle these issues together, and we work closely with the Environment Agency and partners to improve water quality.

Work to improve bathing water quality has been defined in our Improvement Plan Strategy, which prioritises key locations for targeted work. This includes Deal Castle.

What was the cause of the recent water quality classification decline at Deal Castle?

Deal Castle bathing water classification recently declined to 'Poor', following Environment Agency's sample results taken from 2021 through to 2024.

Unfortunately, there are no definitive answers to explain the decline. No high samples correspond with Combined Sewer Overflow (CSO) releases.

The last CSO release from Golf Road outfall was **2 October 2021**.

It's crucial that we work with Dover District Council and other partner organisations to identify all likely sources of pollution including misconnections/illegal connections, private drainage and our own sewers. Bathing water quality is very rarely impacted by a single issue.

During the summer, the Environment Agency advised they increased testing at Deal Castle, but have yet to link any issue with water quality there back to Southern Water. They also shared the below, which you may find useful.

- Suspected pollution can come from a variety of sources. Deal Castle was rated as sufficient in 2023 due to a particularly wet summer where pollutants, including faecal bacteria, will have been washed off farms and roads into the sea. The rating was excellent or good in the previous three years.
- Between May and September, the Environment Agency takes more than 7,000 water samples at 451 designated bathing waters across England. The samples are tested in our labs and the results uploaded onto the Swimfo website, to help the public make informed decisions about where to swim. On Swimfo, the public can also access pollution risk forecasts, updated daily to indicate any expected temporary reduction in water quality due to rain, wind, and high tides.

Southern Water is not spending its profits to improve water quality. Why not?

Contrary to what customers may hear, we are spending money where it's needed - £3bn between 2020 and 2025.

We have **not paid** external dividends to shareholders since 2017. Instead, all profits are being invested back into the business, and most of this is going towards improving our environmental performance and our network assets.

What is Southern Water planning to do in the next Business Plan period (2025-30) to improve bathing water quality at Deal?

While Deal was selected as one of our six Pathfinder pilots, the main reason for this wasn't due to bathing water quality.

It was to reduce the chronic flooding residents in the Albert Road area regularly experienced over many years. As heavy rainfall events increase due to climate change, properties will continue to be at risk from flooding unless we tackle the amount of surface water that gets into the combined sewer system.

Finalised plans for the next five years are TBC. In October 2023, we submitted our ambitious Business Plan to Ofwat for the period 2025-30, which is the company's largest ever at c.£8 billion.

Our Clean Rivers and Seas interactive map shows that our Golf Road (Deal) outfall does not release greater than 10 times per year on average, therefore already achieving the Government's target. The last release was on 2 October 2021.

However, we will undertake CCTV analysis of our sewers and fix any issues that we find. We will work with the Dover District Council, Kent County Council and the Environment Agency to identify any other impact factors.

We have been and will continue to collect water quality samples from various locations and investigate the catchments that record higher than normal levels of bacteria.

Illegal connections investigations in Dover and Deal

Illegal connections, also known as misconnections, are misconnected household appliances and plumbing which cause pollution.

This includes washing machines, sinks, dishwashers, toilets and showers etc, and pollution happens when wastewater from customers home drains into sewers that lead to streams and rivers.

It's the homeowner's responsibility to ensure there are no misconnections at their property. On many occasions we find that homeowners are unaware they have a misconnected appliance, so we help customers if they are unsure what they need to do.

Deal Castle has a specific improvement plan for 2024. Dover is not a designated bathing water, however, the team have been investigating sources of pollution reaching the River Dour.

Investigations in Deal

Tacking potential issues together is the only way we will improve bathing water and we will work with Dover District Council, Kent County Council and the Environment Agency to identify any potentially impacting factors.

We're doing a wide range of different work in the area to help improve water quality, including additional water sampling from various locations, CCTV analysis of our sewers and private sewers and tackling illegal connections.

We're also supporting Dover District Council with investigations at Deal Pier which may be impacting bathing water quality

Deal Castle is the focus of a bathing water improvement plan, and so far our work the following activities.

Property checks:

A number of properties checked to confirm they were connected to mains drainage.

Beach walkover recorded observations at 17 locations along the coastline. The areas were selected based on location of assets, historic issues and noticeable landmarks.

No evidence of issues that could impact water quality were noted.

Surface water inspections:

Manhole covers lifted to visually check for evidence of contamination or strong detergent or foul odours.

34 Surface water manholes checked and a manhole located in Trinity Place was found to contain grey staining.

Further investigations have found three misconnected properties.

Caging Surveys:

Four cages installed strategically around the Deal Castle catchment to monitor the flow passing through the surface water network.

The areas were selected based on location of assets, historic issues and noticeable landmarks.

No evidence of household waste found and no evidence of issues that could impact water quality.

Summary of Deal Castle findings

- Three Illegally Connected properties were found to have kitchen waste connected to the surface water sewers in Trinity Place
- All properties are now correctly connected. One property required enforcement action from Dover DC.

What we are doing now – Deal Pier investigations

Investigations are ongoing to test the integrity of Deal Pier drainage, to ensure there are no issues potentially impacting bathing water quality.

As part of this work, we're introducing smoke testing into the drainage which will show if any joints are displaced, which may be causing leaks.

Deal Pier is Dover District Council's responsibility. Collaboration is key and we are supporting.

Southern Water contractors are carrying out the work and SWS are funding the initial investigation.

We attended on Thursday 14 November with representatives from Dover District Council. We were able to complete the smoke test on the gravity sewers located at the far end of the Pier. No signs of leaks were observed.

We were unable to test 300m of rising main sewer due to the distance before the point of discharge into the public sewer, and we are drawing up a proposal detailing next steps.

Findings TBC.

Deal Castle – Further Bathing Water Investigation 2025 to 2027

Deal Castle bathing water has been selected for an in-depth investigation in AMP8, which is our business period between 2025-30. This investigation will include:

- A desktop study to draw together historic information and studies, asset information, sewer CCTV, risk scoring of sewers including age, outfalls, extent of adits, seaweed records, historic mapping and so forth.
- Asset investigation
- Liaison with partner organisations
- Walkovers
- Lift and look investigation of surface water sewers
- Caging of surface water sewers
- CCTV of high risk sewers
- Analysis of existing and commissioned CCTV
- Coastal sampling

- Urban drainage modelling
- Coastal modelling
- Solution development
- Recommendations for mitigation measures
- Reporting

These studies will start in 2025 and will be carried out over the two years. Findings will be reported to the Environment Agency before May 2027.