

Pumping station septicity control

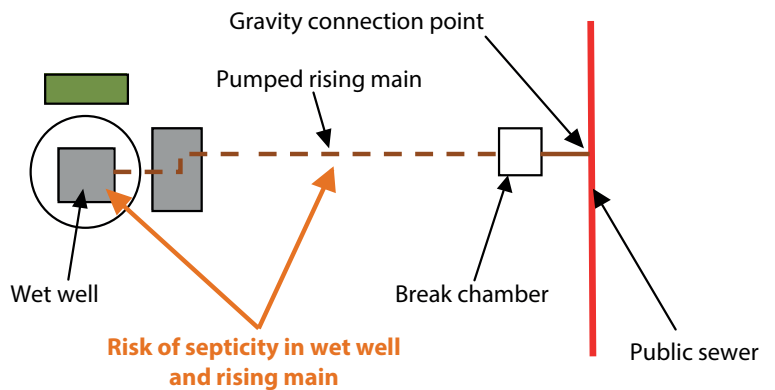
These guidance notes are provided to help you fill in the pumping station septicity control form. The relevant section of the Water Industry Act 1991 is:

- Section 111a – provisions protecting the sewerage system

What is septicity?

Foul sewage is waste from domestic kitchens and bathrooms, or commercial businesses. A common problem with foul pumping stations is a combination of low flows and long retention times. This results in bacteria multiplying in the anaerobic conditions. This is called 'septicity' and can occur in wet wells or rising mains. Consequent formation of hydrogen sulphide gas (H₂S) can cause:

- A nuisance with its characteristic 'bad egg' smell, which leads to customer complaints.
- Lethal gas hazard during man entry into chambers.
- Reaction with moisture to form sulphuric acid. This has a corrosive effect on pipeline linings, concrete chambers and electrical fittings.



What do I need to do?

Step 1 Application

Please complete the septicity form and return it to either:

- Sewer Connections team in Bath – when connecting a private rising main to the public sewer.
- Or
- Our local Developer Services office – for adoption of a proposed pumping station on a new housing development.

Contact details are at the end of these guidance notes.

Step 2 Review

Wessex Water will review your data and advise you if we consider there is a risk of septicity or not.

Step 3 Approval

If we confirm there is little or no risk of septicity from your pumping station, you can carry on with your construction.

Step 4 Advice if not approved

If we identify there is a risk of septicity, we will help with advice how to you can reduce that risk.

How does Wessex Water predict septicity?

Wessex Water carries out modelling to determine the extent of septicity, and how likely it will occur. We need data about the rising main, flows and pumps to calculate a prediction. We also take proximity to population into account.

When we have worked out the risk, we can advise whether the pumping station may have septicity problems or not.

When does a septicity form need to be submitted?

You need to fill in a septicity form when you connect a pumped rising main from a pumping station to a public sewer.

The only exceptions are when the connection is from a single domestic property, or if the pumped rising main is less than 50 metres long.

What information do I need to provide?

Please fill out the pumping station septicity form. You need to provide the following information:

Map showing

- The location of the pumping station, the route of the rising main, where the discharge point is, and any air valves along the pipeline.
- Length, diameter and material of the rising main.
- Pumping station details – pump rate, duration and frequency.
- Wet well details – size and retention times.
- Details about the properties served by the pumping station – numbers and size of houses, or general details if it's a commercial business.
- If there is a storm tank because this may affect flows during wet weather.
- Any other connections into the pumping station (if known).

What happens if septicity is identified?

If we believe septic flows will damage our sewers, we can object to the rising main connection or pumping station adoption. You will need to either improve your design, or add chemical dosing. Solutions include:

- Alter the pumping frequency or duration.
- Changes to the rising main, such as a shorter route, or twin mains for low flow/short term and high flow/long-term.
- Install a small chemical dosing kiosk next to the pumping station.

What is chemical dosing?

Septicity can be reduced by adding sodium nitrate or calcium nitrate chemicals to the flow. Package units are available, and we can help advise about size and dose rates. We will give you a copy of Wessex Water's design standard for nitrate dosing, which you will be expected to meet. You will bear the costs of supply and installation, and any operation or maintenance costs up until the day the plant is adopted as public.

How much will it cost?

There is no fee or charge for our advice. However the results may identify that you need to supply and install extra equipment and chemicals, for which you will bear the cost.

How long does the review take?

Wessex Water aims to respond within a fortnight.

Contact us

For applications when connecting a private rising main to the public sewer (Section 106) please contact:

Sewer connection team 01225 526333 email sewer.connection@wessexwater.co.uk

Developer Services, Wessex Water, Claverton Down, Bath BA2 7WW5

Correspondence and liaison for a pumping station on a new housing development (Section 104) is done by your **local Developer Services** office.

North - Wessex Water, Kennet Way, Trowbridge, BA14 8RN
Tel: 01225 522682 email development.north@wessexwater.co.uk

South - Wessex Water, Poole STW, Cabot Lane, Poole, BH17 7BX
Tel: 01202 643461 email development.south@wessexwater.co.uk

West - Wessex Water, Riverside, Chilton Trinity, Bridgwater, TA6 3JS
Tel: 01823 225219 email development.west@wessexwater.co.uk



www.wessexwater.co.uk