



# Keeping your water flowing

How we maintain our mains network



water

# Keeping your water flowing

**Maintenance and replacement of our water supply network can cause disruption to our customers' supplies. This leaflet explains how we carry out this essential work, while at the same time doing all we can to minimise inconvenience.**

If you have any concerns, or would like further information please contact our Customer Services Team on

**01737 772000**

From time to time water mains have to be maintained or replaced. Over time they deteriorate internally, discolouring the water, become encrusted and narrow, causing reduced flow, and occasionally they burst. As they wear out, water can be lost through leakage.

We recognise that our works to repair or replace water mains can cause inconvenience, but we are committed to minimising disruption as far as possible.

Keeping leakage to a minimum is a key aim. We have one of the lowest rates of water loss in the country. Much of this is thanks to our customers reporting suspected leaks. However, our continued programme of regular maintenance helps to prevent leaks before they become a problem.

You can find out where we are planning to carry out maintenance works, and any current supply interruptions, on our website [www.seswater.co.uk](http://www.seswater.co.uk).

# Planning for mains replacement

**Our programme of mains replacement is targeted to where failures currently occur, and where future failures are likely to cause most disruption.**

We take great care to understand the impact that our essential works may have on the local community. We understand they have the potential to cause disruption to residents and road users, so we spend time planning our works – sometimes up to a year in advance.

The Highways Authority is informed early in the process. This gives them time to coordinate our works with other utilities and their own street works.

Working closely with our specialist contractors, we survey the area and assess the most appropriate installation technique to minimise disruption without endangering the

safety of the public or our workforce.

If the mains are located on private land we discuss proposals with the landowner at the planning stage, and try to make allowances for any particular requirements.

We take our commitment to the environment seriously. We employ environmental and ecological specialists to consider any effect on surroundings and habitats. Detailed surveys of ground conditions are undertaken. The impact on water courses, trees and hedgerows are all taken into account, as well as any protected species and the potential for archaeological finds. If necessary, we adapt our programme accordingly.

Our carbon footprint is another key concern. If possible, we try and utilise trenchless techniques to reduce the amount of material excavated and the area to be reinstated.

Where excavations are essential, we use partially recycled roadstone instead of newly quarried materials. This reduces waste and ensures the highway surface is restored to the highest standards.

Sometimes traffic controls are necessary to ensure our staff work in a safe environment. While we understand this may increase journey times, we are grateful for tolerance towards our workforce who carry out difficult work in all weathers and conditions.



# Replacing a water main

There are four separate stages to install a water main:

**Stage 1 : Lay the main**

**Stage 2 : Test for quality**

**Stage 3 : Transfer property supply pipes**

**Stage 4 : Disconnect the old main**

**Stage 1 : Lay the main**

Two techniques are considered depending on conditions – either ‘open dig’ or ‘trenchless excavation’. Sometimes we use a combination of both. Trenchless methods still need excavation work, but the amount of digging is significantly reduced.

## Open dig

This is the conventional way mains have been installed for many years. Trenches are normally excavated by mechanical digger, but occasionally digging by hand is necessary to avoid damage to other services.

Plastic pipes are then installed end to end and fused together. In some circumstances, such as areas where land could be contaminated, we use iron pipework.

## Trenchless excavation

We use three different types of trenchless excavation:

**4** [www.seswater.co.uk](http://www.seswater.co.uk)

‘directional drilling’, ‘pipe bursting’ and ‘sliplining’.

All these techniques can minimise traffic disruption as they reduce disturbance of the road surface, so less restoration is required. However, as we cannot see underground, we have to undertake rigorous surveys to make sure that other services and the road structure will not be damaged.

## Directional drilling

This requires two pits to be dug; one to launch the remote controlled drilling head, and the other to receive it. Once the drill has broken through, the new pipe is pulled back to the launch pit and connected to the existing pipe. The process is repeated for each section. Approximately 100 metres of pipe can be installed each time.

## Pipe bursting

This is mainly used for laying small diameter pipes over short distances – e.g. under a road. Two pits are dug exposing the existing main. A ‘hammer’ is forced through the main, breaking it outwards as it goes. The new pipe is drawn behind the hammer filling the same space as the replaced pipe. The new pipe is then connected to the existing main.







### **Sliplining**

This is a special technique for extending the life of larger strategic mains. A new plastic main, which has a slightly smaller diameter than the existing pipe, is pulled or pushed into the main. We can do this over a length of up to 400 metres at a time. The only excavations are at either end of the new pipe.

### **Stage 2 : Test for quality**

Whichever method is used, the new main has to be sterilised and pressure-tested, and the water quality checked, before it can be connected to the mains network.



During this stage, it may appear that not much is happening on site. However, back at our laboratory, scientists are busy carrying out detailed technical analysis of water samples to make sure the new main is clean and sterile.

Our engineers are also pressure testing the new main to guarantee that the workmanship of our contractors meets our strict standards and there are no leaks.

### **Stage 3 : Transfer property supply pipes**

To transfer from an old main to the new one, a new service pipe is laid from the main as far as a property's existing stopcock. This is typically located just inside or outside the property boundary. The existing stopcock is removed and the new service pipe connected to the property's incoming water supply.

If you have a water meter it will be transferred to the new supply. If you don't, but subsequently decide to have one, it can easily be fitted into the chamber housing the new stopcock.

Should you be interested in having a water meter fitted while works are taking place, please see our website for details, or contact our Customer Services Team on 01737 772000. They will be happy to explain the advantages.

### **Stage 4 : Disconnect the old main**

Once all properties have been connected, the old main can be disconnected. It stays in the ground as it's not cost effective to remove it. But its position is recorded so other utilities are aware it is no longer in use.

# Surface restoration

**Restoration of the original surface is called reinstatement.**

We aim to carry out reinstatement works to the highest standards. In a road, it has to meet the Highways Authority's specifications. In private land, we agree the nature of the works with the owner.

Wherever possible, we reuse any material we have disturbed. Sometimes we carry out an interim or temporary reinstatement. This could be because we need to excavate the same area again later in the works.

Temporary reinstatement may not precisely match the surrounding surface. This is not a concern, because it will be replaced in the near future.

Irrespective of the type of reinstatement, we continue to be responsible for the surface for up to 24 months.



*Reinstating the road surface*



Tarmac Limited

# Important information

## Our Code of Practice on Electrical Earthing.



**If your property uses the metal water service pipe as a means of electrical earthing, our works may make it unsuitable for this purpose.**

Using a metal service pipe as an electrical earth has been prohibited by the Institution of Electrical Engineers Wiring Regulations since 1966. However, it is possible that buildings built before that date may still be earthed in this way.

We therefore strongly advise that you contact your local electricity supply company or an approved electrician for advice. They may recommend that you have your earthing checked and are entitled to charge you for this service.

We would emphasise that the earthing for a property is an essential safety requirement and is the sole responsibility of the owner of the property. We cannot accept liability for damage or injury resulting from the use of a water pipe as an electrical earth.

If you are not responsible for the electrical earthing of the property, please ensure that the owner or the appropriate person is informed.

### Further information

- If mains replacement work is scheduled to take place in your area, we will write to you in advance to let you know when work will start and how you will be affected.
- Although we have statutory powers to carry out water supply works, we have a responsibility to plan, maintain and install with full consideration for residents and businesses affected.
- We will consider claims for compensation for loss of profit from businesses directly affected. If a business believes it may have a claim, they should contact us for advice on the procedure to follow to ensure the matter is dealt with in an efficient manner.
- Our website provides up-to-date information about current mains replacement works. If you would like any further information, or are concerned about any proposed or current work in the vicinity of your business, please call our Customer Services team on 01737 772000 or email [CustomerRelations@seswater.co.uk](mailto:CustomerRelations@seswater.co.uk).



**Website:** [www.seswater.co.uk](http://www.seswater.co.uk)  
**Telephone:** 01737 772000 Including out of hours emergencies  
**Telephone:** 0800 587 2936 Freephone payment line  
**Email:** [CustomerRelations@seswater.co.uk](mailto:CustomerRelations@seswater.co.uk)  
**Twitter:** @SESWater

Office hours:  
8:00am to 6:00pm Monday to Friday

**Wastewater customer queries:**

Thames Water: 0800 980 8800

Southern Water: 0330 303 0277

**Other information leaflets:**

- Every drop counts
- Having a water meter fitted
- Finding and fixing leaks
- Our helping hand scheme
- Look out for lead
- Code of practice on debt for domestic customers

SES Water, London Road, Redhill, Surrey RH1 1LJ

Printed on Forest Stewardship Council (FSC) accredited paper

MRSES007 300001 - 02/17