

# Replacement of Lead Supply Pipes

## Guidance Note

This document provides guidance to homeowners on the replacement of water-supply pipes made of lead. Homeowners are responsible for all pipes on their land and inside their house or apartment. This is advice and you should only use it as a guide.

Systems that distribute water to domestic households must be installed and maintained so:

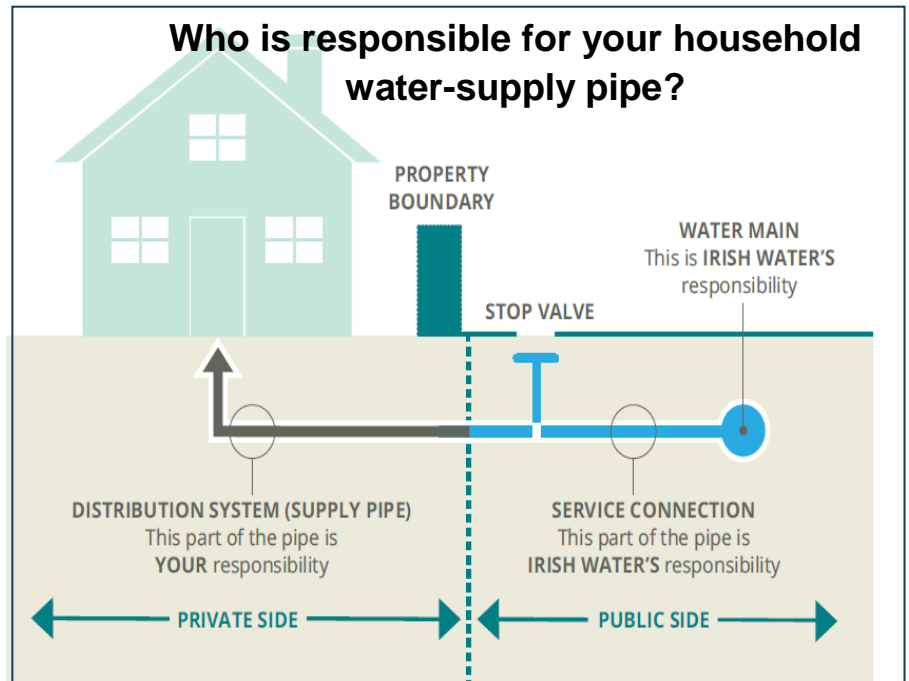
- they minimise the risk of contamination; and
- avoid water wastage.

Use only fittings and materials that are approved by the UK's Water Regulations Advisory Scheme (WRAS) or the Drinking Water Inspectorate (DWI) as suitable for contact with drinking water.

At a minimum, all lead pipes and any fittings containing lead should be replaced from just outside the property boundary to the kitchen tap. All other lead pipes connected to your water-supply pipe should also be replaced. Lead can get into drinking water when it comes into contact with:

- lead pipes;
- lead solder (used in the past for jointing pipes); or
- any fittings containing lead.

A competent and suitably qualified plumber should do the work. They should provide you with written confirmation that they used appropriate materials and that their work was of an appropriate standard. Please read this guide carefully and give it to your plumber before any work is done. In situations where the plumbing is not straightforward, it may be necessary to get independent advice about how the pipe should be replaced.



If you are an Irish Water customer, Irish Water is responsible for the service connection pipe outside the boundary. You are responsible for the water pipes on your land and inside your house or apartment.

Your plumber should lay a new water-supply pipe (usually within one metre of your existing water-supply pipe or stop valve) and do any necessary work to the plumbing inside your home. The pipework should be laid to the outside edge of the wall footing or hedge at the property boundary, with at least 600 millimetres of pipe coiled up at the boundary to allow for the supply to connect to the stop valve without the need for a joint (a fitting for connecting pipes). If you are an Irish Water customer, details of the works must be agreed with Irish Water (and your local authority) before you begin the work.

### Pipe materials

For domestic properties, we recommend polyethylene (PE). All PE pipes should conform to I.S. EN 12201 and be either:

- PE-100 with an SDR rating of 17; or
- PE-80 with an SDR rating of 11.

Pipes that comply with IS EN 12201 should be marked in accordance with the standards.

All PE pipes for use in normal ground conditions should be:

- blue or black with blue stripes;
- have a minimum internal diameter of 15mm; and
- have a minimum external diameter of 20mm.

Other specialist materials should be used if the ground is possibly contaminated or if hydrocarbons like oil, petrol or creosote have spilled on the ground. In such circumstances please ask your plumber to get specialist advice.

### Pipe position underground

Ideally the replacement water-supply pipe should be laid directly, without joints, from the connection point at the property boundary to the point of use (generally the kitchen sink). However, if the use of joints cannot be avoided, they should not be used on sections of the replacement water-supply pipe located inside any duct (a tube or passageway).

The recommended minimum depth of cover (with filling) from the finished ground level to the external top of the water-supply pipe is 600 millimetres. The pipe, when not ducted, should be bedded in sand or appropriate granular material to protect it from being penetrated by sharp objects. Builder's rubble should never be used as the bedding and surround of the new water-supply pipe.

When laid in or under concrete, the water-supply pipe must be inserted in a suitable sleeve or duct that will allow the pipe to be withdrawn at a future date, if necessary. The sleeve should be sealed with a suitable material at both ends.

### Pipe joints and fittings

It is important to note that any pipe joints, fittings and accessories used in the installation of the new water-supply pipe should be certified as suitable for use with potable water to ensure ongoing protection against contamination. All connecting products and materials should be approved as suitable for contact with drinking water by the UK's Water Regulations Advisory Scheme (WRAS) or the Drinking Water Inspectorate (DWI).



## Important safety notice

A partial or full lead water supply pipe replacement can create lead deposits. These deposits might continue to be found in the water for a number of weeks. You should run the kitchen tap for several minutes, initially in the morning and after long periods of non-use, for several weeks after replacement. Please consider re-using this water for non-drinking purposes.

## Pipes used to earth electricity

If you plan on making repairs or alterations to your water-supply pipe, be aware that in some properties the metal water pipes may have been used as the way of earthing the electrical system for the property.

If you think your electrical system relies solely on a water pipe to provide an earth, please consult a suitably qualified and certified electrician to check your electrical system as it may be necessary to provide another independent earth connection.

## Trenches

Trenches should be wide enough to allow the safe laying of the replacement water-supply pipe. There should be a minimum distance of 350mm between the water-supply pipe and any nearby utilities such as electricity or gas. The trench should be at least one metre from things like trees, lighting columns and lamp posts.

## Disconnection of unused pipes and fittings

Your plumber must disconnect any disused pipes or fittings. This is important because disused connections can result in the build-up of stagnant water and the possible contamination of the water-supply pipe.

## Local authority bye-laws

*Water bye-laws and plumbing regulations may exist in your local authority area. If you install or maintain plumbing systems and water fittings, you must comply with such legal requirements. Please contact your local authority plumbing inspectorate about bye-laws that apply in relation to water-supply pipes. Should your replacement works fail an inspection, you will need to arrange with your plumber to bring the work up to standard.*

## Insulation

*Your pipes do not need insulation inside your dwelling unless they are in an area without heating. Where the pipe is outside the heated area, it should be insulated.*

*Your water-supply pipe may need insulation if they enter your building inside a duct (a tube or passageway). You should use a thickness of insulation that is suitable and it should be water resistant.*

## Stop-taps at entry to a building

Where the water-supply pipe enters the building, an appropriate stop-tap must be fitted. This is usually as close as possible to the sink.

## Ducting

A suitable duct (tube or passageway) should be provided where a water-supply pipe enters or runs underneath a building. The duct should be the appropriate size for the water-supply pipe and any insulation required. For health and safety reasons, the duct should not contain any markings for other utilities such as electricity, gas or telecom. Ducts should be sealed at both ends.

## Standards for plumbers

**IS EN 806 Parts 1 to 5:** for the standard covering the design, installation, operation and maintenance of systems conveying water for human consumption inside buildings and curtilages (property).

**BS8558:** is the standard for the design, installation, testing and maintenance of services supplying water for domestic use within buildings and curtilages. This document provides complementary guidance to BS EN 806.

**IS EN 805:** is the standard for water supply requirement for systems outside buildings.

**Good Building Guide 40:** is to be consulted for protecting pipes from freezing.

## Irish Water customer opt-in

If you are a customer of Irish Water and you plan on replacing all the lead drinking water pipes within your property's boundary, you must apply for Irish Water's Customer Opt-In Lead Pipe Replacement Scheme before you replace the pipes. By doing this, Irish Water will replace any lead pipes on the public side of your property's boundary. Both sets of pipes must be replaced for your drinking water to have a lead level that will probably be below the legal limit. For more information on Irish Water's Customer Opt-In Lead Pipe Replacement Scheme, visit [www.water.ie/lead](http://www.water.ie/lead) or call Irish Water on 1850 278 278 or +353 1 707 2828.