

**Dŵr Cymru Welsh Water's
Self-lay Policy for Water Mains and
Services
July 2015**

Introduction

This Self-Lay Policy applies when a developer decides to “self-lay” water mains and services (ie. construct water mains itself or appoint a Self-Lay Organisation (“SLO”) to do so on its behalf).

In relation to the self-lay of water mains, Dŵr Cymru Welsh Water adopts the WRc Code of Practice ‘Self-Laying of Water Mains and Services (2nd edition) May 2009, as amended (the “Code of Practice”)¹, subject to the variations applied by Welsh Water as set out in this Policy.

This Policy is to be read in conjunction with the following industry-wide materials:

- The Self-Lay Code of Practice National Addendum for the Safe Control of Routine Mains Connections, Version 1, which is available from selflay.wrcplc.co.uk, plus any other national addenda which may be produced;
- The Water Industry Act 1991 as amended by the Water Act 2003 and Water Act 2014; the Highways Act 1980; the New Roads & Street Works Act 1991 and all other applicable legislation, all as may be amended from time to time; and
- Civil Engineering Specification for the water Industry (CESWI) 7th edition.

This Policy is also to be read in conjunction with the following Welsh Water materials:

- Dŵr Cymru Welsh Water’s Guidance on how to apply to Self-lay Water Mains and Services;
- Dŵr Cymru Welsh Water’s Policy on Security Requirements in relation to Self-lay and Requisition; and
- Dŵr Cymru Welsh Water’s standard self-lay agreement .

This Policy, together with other Welsh Water related materials, is available on our website.

If you have any queries relating to self-laying of water mains or services, please contact us on 0800 9172652 or email us at new.connections@dwcymru.com stating ‘Self-Lay enquiry’.

¹ The Code of Practice covers the design and installation of new on-site water mains and communication pipes, including boundary stopcock and/or meter chambers, and the installation of off-site mains.

Welsh Water's variations from the Code of Practice

Welsh Water's variations from the Code of Practice, to reflect Welsh Water's operational practices, are as set out below:

Part 1 – General

1.4. Responsibility for Protection of Street Furniture

Delete clause 1.4.1 of the Code of Practice and replace with Welsh Water's variation of clause 1.4.1 as follows:

"The Developer/SLO is responsible for the protection of street furniture including covers, lids, frames and chambers, until such time as the street has been adopted by the person(s) responsible for its ongoing maintenance.

Note after transfer of ownership, access to all valves and fire hydrants is required by Welsh Water and the Fire Authority respectively. Refer to Section 2.3."

1.6 Protection of Water Quality

Delete clause 1.6.7 of the Code of Practice and replace with Welsh Water's variation of clause 1.6.7 as follows:

"The final connection of the self-laid main to the water distribution system shall not be carried out until satisfactory disinfection, pressure test and water sample results have been provided to Welsh Water.

Note: *The Developer/SLO shall ensure that all staff installing water mains and services shall have an appropriate combination of education, training and practical experience to undertake the work. All personnel shall be registered on the 'Energy & Utility Skills Register' and be in possession of a valid 'Water Sector Health, Safety and Environment Passport' including a National Hygiene Card. Cards shall be carried at all times and shall be available for inspection by Welsh Water representatives on request.*

The SLO shall submit sufficient information to Welsh Water, before any new main is connected, to enable Welsh Water to establish that adequate future turnover in the new network will be achieved to protect water quality. Any flushing that may be required, to maintain water quality, following connection of the main will be chargeable to the Developer/SLO. "

1.7 The Agreement

Delete clause 1.7.1 of the Code of Practice and replace with Welsh Water's variation of clause 1.7.1 as follows:

"Where a Developer chooses to design and/or lay water mains, services and associated apparatus, the Developer and SLO shall enter into an agreement with Welsh Water. Welsh Water uses the current National Model Legal Agreement and reserves the right to amend clauses that reflect our operational practices. A copy of the current agreement can be provided on request. Self-Lay work cannot commence until the signed agreement and the appropriate payments are received by Welsh Water."

Part 2 – Self-Lay Procedures

2.2 Initial Enquiry

This additional wording is to be added to clause 2.2 of the Code of Practice:

“Where the Developer/SLO wishes to carry out the design they are to complete and submit the point of connection enquiry form available on Welsh Water’s website. All the information in Table 3 of the Code of Practice is to be included.”.

2.3 Design and Application

2.3.1 Design by Developer/SLO

This additional wording is to be added to clause 2.3.1 of the Code of Practice:

“On confirmation from Welsh Water of the feasibility of supplying the proposed development the Developer/SLO can then submit the information in Table 4 which includes the full application pack available on Welsh Water’s website.”.

2.3.2. Design by Welsh Water

This additional wording is to be added to clause 2.3.2 of the Code of Practice:

“If the Developer/SLO requests Welsh Water to carry out the design the full application form is to be submitted including all the information listed in Table 5 of the Code of Practice.”.

2.4. Construction Stage

2.4.1 Notification of Start

Delete clause 2.4.1. 2 of the Code of Practice and replace with Welsh Water’s variation of clause 2.4.1.2 as follows:

“Prior to commencement of the work, a meeting should be organised by the Developer/SLO and should be attended by the Developer/SLO and Welsh Water to finalise arrangements and discuss any variations in the programme.”.

Delete clause 2.4.1. 3 of the Code of Practice and replace with Welsh Water’s variation of clause 2.4.1.3 as follows:

“The Developer/SLO should issue a notification of the start date for mains laying by using Welsh Water’s form SL1.”.

2.4.3 Final Connection

This additional wording is to be added to clause 2.4.3 of the Code of Practice:

“Where a connection of a new main is needed to an existing water distribution system, Welsh Water should make the connection and construct a section of main ending with a temporary WO, either at the site boundary or at a suitable agreed location if off-site main laying is required.”.

Part 3 – Design and Construction Guidance

3.7 Construction

This additional wording is to be added to clause 3.7.1.1 of the Code of Practice:

“Before construction of any self-lay adoptable work commences, there should be a completed self-lay agreement in place between all involved parties and all appropriate fees paid.”.

Welsh Water’s materials’ specifications

All material used on self-lay schemes must meet Welsh Water’s specifications as detailed below:

- All pipes must be delivered and stored with end caps; and
- All MDPE fittings must be delivered and stored in plastic heat sealed bags

Mains on non contaminated sites	All pipes to be DWI regulation 31a approved Mains 90mm and above to be HPPE (PE100) 90mm to 225mm and 225mm and above to be at the appropriate pressure for the network application. All pipes must be marked with PN code and SDR on the pipe
Mains on contaminated site	Mains up to 180mm shall be in barrier pipe Mains 225mm and above can be barrier if available or Ductile Iron compliant with BS EN 545 1995 and WIS 4-41-01, the minimum external corrosion protection shall be zinc coated with epoxy to BS EN 545, and all ductile pipes and fittings shall be internally lined.
Services on non contaminated sites	Services up to and including 63mm to be MDPE (PE80)
Services on contaminated site	Either barrier pipe (preferred) or plastic coated underground copper (BS EN 1057/1996)
Electro fusion couplings for mains	To be HPPE (PE100) and can be blue or black in colour, all electro fusion fittings to incorporate fusion indicators.
Electro fusion tapping saddles for MDPE / HPPE mains	To be self tapping and of under-clamp bottom loading design, all electro fusion fittings to incorporate fusion indicators No gunmetal tapping saddles to be used on MDPE / HPPE mains.
Tapping saddles for ductile iron, cast iron, UPVC, and asbestos mains	All tapping saddles to be made to BS 1400 LG2 C 2789 grade 500/7, and are capable of withstanding pressures of 16 bar.
Valves	Compliant with BS EN 5163, internal and external protection to be blue fusion bonded epoxy powder coating. All valves to be right hand (clockwise) close, unless marked otherwise on the design drawing.
Fire Hydrants	Compliant with BS750. All hydrants to have a gunmetal or epoxy coated stainless steel outlet. The hydrant shall have an automatic frost valve, no water shall escape during operation and the body shall fully drain afterwards. All hydrants to be of a fixed jumper design

Chamber sections	Chamber sections to be rectangular and made of either plastic or pre cast concrete. Square if for Sluice Valves and plinths for stop taps.
Chamber covers	All covers shall comply with BS EN 124/ BS 5834.
Boundary Boxes Non contaminated sites	A Single boundary box unit or multi port manifold may be used (if multi port manifold, construction should be of DZR Brass). The boundary box must be able to incorporate a manifold meter with 1 ½" thread, stop tap and non-return valve. All boundary boxes must have height adjustment capabilities
Boundary Boxes Contaminated sites	Where boundary boxes are used on contaminated sites they must comply with WIS-4-37-01 be watertight and shall have gunmetal connection fittings that are able to accept either barrier pipe or plastic coated copper pipes. Boundary boxes must be the 'sealed' version with ¾" female connections, ¼ - turn spherical Valve and 1 ½" concentric meter position with check valve.
Meters	<p>Meters issued by Welsh Water will be supplied free of charge and conform to the following specification:</p> <p><u>Meter Specification</u> <u>15mm/20mm Domestic & Commercial Positive Displacement In-line & Concentric Meters (P)</u></p> <ul style="list-style-type: none"> • Standards ISO 4064 & EEC Metrological requirements. • Type Model P available for the UK Market for its unique billing application. • IP68 Super Sealed Stainless Steel M3 Register c/w magnified Glass lens. • 10 year warranty against condensation. • IP68 Sealed Pulse under Glass Register (1 Pulse per Litre). • Both pulse and optical output models available. • Maximum Working Pressure 10 bar. • Maximum Temperature 50 degrees C. • Corrosion-proof copper alloy meter body or Welsh Water approved composite body. • Meter must be able to be installed in any position (horizontal, vertical or inclined). • Meter must be full of water while operating. • Prior to installation of a new meter the pipeline must be flushed out. • Welsh Water approved Model P installation Keys required. <p><u>Larger meters, varying types.</u></p> <ul style="list-style-type: none"> • Individual guidance from Welsh Water to be obtained in regard to other sizes and types of meters