

Approved Document G:  
Requirement G2 Water efficiency

Consultation draft

September 2014

## The Requirement G2 and regulation 36

This Approved Document deals with the following Requirement from Part G of Schedule 1 and regulation 36 to the Building Regulations 2010.

<i>Requirement</i>	<i>Limits of application</i>
<b>Water efficiency</b>	
<b>G2.</b> Reasonable provision must be made by the installation of fittings and fixed appliances that use water efficiently for the prevention of undue consumption of water.	Requirement G2 applies only when a dwelling is— (a) erected; or (b) formed by a material change of use of a building within the meaning of regulation 5(a) or (b).
<b>Water efficiency of new dwellings</b>	
<b>36.</b> —(1) The potential consumption of wholesome water by persons occupying a <b>new dwelling must not exceed the requirement in paragraph (2).</b>	
(2) The requirement referred to in paragraph (1) is either – (a) 125 litres per person per day; or (b) in a case to which paragraph (3) applies, the optional requirement of 110 litres per person per day, as measured in either case in accordance with the methodology set out in the document “The Water Efficiency Calculator for New Dwellings”, published in September 2009 by the Department for Communities and Local Government.	
(3) This paragraph applies where the planning permission under which the building work is carried out— (a) specifies the optional requirement in paragraph (2)(b); and (b) makes it a condition that that requirement must be complied with.	
(4) In this Part, “new dwelling” does not include a dwelling that is formed by a material change of use of a building within the meaning of regulation 5(g).	
<b>Wholesome water consumption calculation</b>	
<b>37.</b> —(1) Where regulation 36 applies, the person carrying out the work must give the local authority a notice which specifies – (a) which of the requirements in regulation 36 (2) (a) or (b) applies to the dwelling; and (b) the potential consumption of wholesome water per person per day in relation to the completed dwelling.	
(2) The notice shall be given to the local authority not later than five days after the work has been completed.	
<b>Building (Approved Inspectors) Regulations 2010</b>	
<b>Application of Provisions of the Principal Regulations</b>	
<b>20.</b> —(1) Regulation 20 (provisions applicable to self- certification schemes), 27 (CO emission rate calculations), 29 (energy performance certificates), 37 (wholesome water consumption calculation), 41 (sound insulation testing), 42 (mechanical ventilation air flow rate testing), 43 (pressure testing) and 44 (commissioning) of the Principal Regulations apply in relation to building work which is the subject of an initial notice as if references to the local authority were references to the approved inspector.	
(4) Regulation 37(2) of the Principal Regulations applies in relation to building work which is the subject of an initial notice as if after “work has been completed” there were inserted, earlier the date on which in accordance with regulation 17 of the Building (Approved Inspectors etc.) Regulations 2010 the initial notice ceases to be in force”.	
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## G2 WATER EFFICIENCY

# Guidance

### Performance

In the Secretary of State's view Requirement G2 will be met for new dwellings if:

- a. the estimated consumption of wholesome water resulting from the design of cold and hot water systems (calculated in accordance with the guidance set out in this Approved Document and taking into account the use of any alternative sources of water provided in accordance with G1(2)) is not greater than the standard set by the Secretary of State of 125 litres/headperson/day of **wholesome water** or 110 litres/person/day where the optional requirement applies;
- b. the manner in which **sanitary appliances** and white goods used in the design calculation undertaken to demonstrate compliance with paragraph (a) are provided and installed in the dwelling takes account of the other provisions in this Approved Document;
- c. the manner in which any alternative sources of water used in the design calculation undertaken to demonstrate compliance with paragraph (a) are supplied to the dwelling, takes account of other provisions in this Approved Document;
- d. a record of the **sanitary appliances** and white goods used in the water consumption calculation and installed in the dwelling is provided along with sufficient other information enabling **building** owners or occupiers to maintain the **building** and its services so as to maintain the water efficiency of the **building**. In this context, relevant white goods are washing machines and dishwashers;
- e. a record of the alternative sources of water used in the water consumption calculation and supplied to the dwelling is provided along with sufficient other information enabling **building** owners or occupiers to maintain the **building** and its services so as to maintain the water efficiency of the **building**.

Where a **building** consists of more than one dwelling (such as a block of flats) it should be designed so that the estimated consumption of wholesome water resulting from the design of the cold and hot water systems for each individual dwelling should be no greater than the target.

~~Where it can be demonstrated that a dwelling meets the minimum water efficiency standard in the Code for Sustainable Homes, the dwelling may be presumed to meet requirement G2.~~

### General

**2.1** The water used by **sanitary appliances** and relevant white goods in a new dwelling should be calculated using the manufacturer's declared value for water consumption of each of those appliances and white goods.

**2.2** The estimated water consumption of a new dwelling should be calculated in accordance with the methodology set out in the "Water Efficiency Calculator for New Dwellings".

**2.3** The estimated consumption of **wholesome water** of a new dwelling should be not more than 125 litres/headperson/day (l/hp/d) or 110 l/p/d where the optional requirement applies. This includes a fixed factor of water for outdoor use of 5 l/hp/d.

**2.4** Where alternative sources of water are to be used in the dwelling design, this should be reflected in the estimate of water use.

### Fittings approach

**2.5** As an alternative to calculating the water consumption (as paragraph 2.2), a fittings approach that is based on the water calculator methodology may be used.

**2.6** Where the fittings approach is used, the water consumption of the fittings provided must not exceed the values in Table 2.1. If they are not the Water Efficiency Calculator must be completed to demonstrate compliance. Similarly, where waste disposal units, water softeners or water re-use is specified the Water Efficiency Calculator must be completed.

Water Fitting	Maximum rating
WC	6/4 litres dual flush or 4.5 litres single flush
Shower	10 l/min
Bath	185 litres
Basin Taps	6 l/min
Sink taps	8 l/min
Dishwasher	1.25 l/place setting
Washing Machine	8.17 l/kilogram

**Table 2.1: Maximum fittings consumption**

**2.7** Where the fittings approach is used, the notice given under regulation 37 should state “Less than 125 litres/person/day using fittings approach”.

## Optional requirement

**2.8** Where compliance with the optional water efficiency requirement is a condition of planning permission, the estimated consumption of wholesome water calculated in accordance with the methodology in the Water Efficiency Calculator for New Dwellings, should not exceed 110 litres/person/day.

**2.9** The responsibility to inform the **BCB** that an optional requirement has been imposed through a planning condition lies with the person responsible for the building work.

**2.10** As an alternative to calculating the water consumption (as paragraph 2.8), a fittings approach that is based on the water calculator methodology may be used.

**2.11** Where the fittings approach is used, the water consumption of the fittings provided must not exceed the values in Table 2.2. If they are not the Water Efficiency Calculator must be completed to demonstrate compliance. Similarly, where waste disposal units, water softeners or water re-use is specified the Water Efficiency Calculator must be completed.

**2.12** Where the fittings approach is used, the notice given under regulation 37 should state “Less than 110 litres/person/day using fittings approach”.

## Notification of water efficiency calculation to the **BCB**

- Where regulation 36 applies, regulation 37 of the Building Regulations (where the **BCB** is the local authority) and regulation 20(1) and (4) of the Building (Approved Inspectors etc.) Regulations respectively require that a notice specifying the calculated potential consumption of **wholesome water** per person per day relating to the dwelling as constructed be given to the appropriate **BCB**.
- In most cases, this notice must be given to the **BCB** not later than five days after the completion of the **building work**. However, where the **BCB** is an Approved Inspector and the dwelling is occupied before completion, the notice must be given not later than the day that the initial notice ceases to be in force in consequence of regulation 18 of the Building (Approved Inspectors etc) Regulations when this is earlier than five days after the completion of the work.
- It is permissible for the notice to be served on the **BCB** electronically provided the **BCB** has stated its willingness to receive the document by those means and it is delivered to the electronic address that the body has specified.
- Local authorities are unlikely to be able to give a completion certificate for the building until the notice required under regulation 37 of the Building Regulations has been received. Approved Inspectors are unlikely to be able to give a final certificate until the equivalent notice under regulation 20(1) and (4) of the Building (Approved Inspectors etc.) Regulations has been received.

Water Fitting	National Base Level
WC	4/2.6 litres dual flush
Shower	8 l/min
Bath	170 litres
Basin Taps	5 l/min
Sink taps	6 l/min
Dishwasher	1.25 l/place setting
Washing Machine	8.17 l/kilogram

**Table 2.2: Maximum fittings consumption optional requirement level**



