

## WAT02: Water Monitoring

**Number of credits available**

**Minimum standards**

1

Yes (criterion 1 only)

### **Aim**

To ensure water consumption can be monitored and managed and therefore encourage reductions in water consumption. Widely popular with BREEAM In-Use projects this is a quick, simple and non-intrusive way of helping building managers, investors, owners and occupiers reduce the running costs and improve the environmental performance of existing non-domestic buildings.

### **Assessment Criteria - One credit**

1. The specification of a water meter on the mains water supply to each building; this includes instances where water is supplied via a borehole or other private source.
2. Water-consuming plant or building areas, consuming 10% or more of the building's total water demand, are either fitted with sub meters or have water monitoring equipment integral to the plant or area.
3. Each meter (main and sub) has a pulsed output to enable connection to a Building Management System (BMS) for the monitoring of water consumption.
4. If the site on which the building is located has an existing BMS, managed by the same occupier/owner (as the new building), the pulsed water meter(s) for the new building must be connected to the existing BMS.

\*Source: www.breeam.org

### **Compliant Waterguard Systems**

**PLEASE NOTE: FOR MAXIMUM CREDITS EITHER SYSTEM MUST BE USED IN CONJUNCTION WITH THE WATERGUARD PULSE SPLITTER WHEN APPLICABLE**

System	Description	Application
Waterguard Water Leak Detection – Mains Meter System	Developed and manufactured exclusively by Waterguard to protect any type of application from the damage caused by burst and leaking water systems. This particular system in the range consists of a Series 7 controller and a pulsed water meter (and any subsequent meters) to be located in the plant room/mains water area. The consumer selects maximum water flow levels allowed which are monitored litre by litre. If this maximum is exceeded the Series 7 controller will notify the building facilities manager that there is a possible leak for them to manually switch off the water supply and investigate the problem.	Suitable for any size of application this system is most suited to any building which has security present or is occupied 24 hours a day. Some examples of applications which already have a Waterguard Mains Metered Water Leak Detection System are: <ul style="list-style-type: none"> <li>• Factories</li> <li>• Warehouse's</li> <li>• Retail Outlets</li> <li>• Children's Centres</li> </ul>
Waterguard Water Leak Prevention – Mains Meter System	Similar to the Waterguard Series 7 Water Leak Detection System in the way in which it monitors the water flow but includes an additional feature. A latching solenoid or powered actuator valve is also included in this system	Again suitable for any size of application the mains meter Waterguard Water Leak Prevention System is recommended for complex residential dwellings and any properties which are left unoccupied for long lengths of time. Some

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	along with the Series 7 controller and pulsed water meter(s). This valve will automatically shut of the water supply and inform the appropriate personnel that a leak has been detected. In the instance of a building having additional booster tanks in the plant room an additional solenoid valve will be needed to cover these areas.	examples of applications which already have a Waterguard Mains Metered Water Leak Prevention System are: <ul style="list-style-type: none"> <li>• Universities</li> <li>• Airports</li> <li>• Business Parks</li> <li>• Listed Buildings</li> </ul>
Waterguard Pulse Splitter	Designed to send an additional pulse signal to an existing Building Management System for the purpose of data logging from a pulsed water meter.	Any building which requires a separate pulse count to be sent to the BMS for the monitoring of water consumption.

## WAT03: Water Leak Detection and Prevention

Number of credits available	Minimum standards
2	No

### Aim

To reduce the impact of water leaks that may otherwise go undetected.

### Assessment Criteria

#### One credit

1. A leak detection system which is capable of detecting a major water leak on the mains water supply within the building and between the building and the utilities water meter.
2. The leak detection system is:
  - a. Audible when activated
  - b. Activated when the flow of water passing through the water meter/data logger is at a flow rate above a pre-set maximum for a pre-set period of time
  - c. Able to identify different flow and therefore leakage rates, e.g. continuous, high and/or low level, over set time periods
  - d. Programmable to suit the owner/occupiers' water consumption criteria
  - e. Where applicable, designed to avoid false alarms caused by normal operation of large water-consuming plant such as chillers.

#### One credit

3. One of the following types of flow control device is fitted to each WC area/facility to ensure water is supplied only when needed (and therefore prevent minor water leaks):
  - a. A time controller i.e. an automatic time switch device to switch off the water supply after a predetermined interval

- b. A programmed time controller i.e. an automatic time switch device to switch water on and/or off at predetermined times.
- c. A volume controller i.e. an automatic control device to turn off the water supply once the maximum pre-set volume is reached.
- d. A presence detector and controller i.e. an automatic device detecting occupancy or movement in an area to switch water on and turn it off when the presence is removed.
- e. A central control unit i.e. a dedicated computer-based control unit for an overall managed water control system, utilising some or all of the types of control elements listed above.

\*Source: www.breeam.org

## Compliant Waterguard Systems

**PLEASE NOTE: FOR MAXIMUM CREDITS EITHER SYSTEM MUST BE USED IN CONJUNCTION WITH THE WATERGUARD WASH ROOM PIR SYSTEM.**

System	Description	Application
Waterguard Water Leak Detection – 2 Meter System	Developed and manufactured exclusively by Waterguard to protect any type of application from the damage caused by burst and leaking water systems. This system in the range consists of a Dual Series 7 controller and two pulsed water meters, one to be located in the plant room/mains water area and the other on the boundary of the building after the utilities water meter. The consumer selects maximum water flow levels allowed for each meter which are monitored litre by litre. If this maximum is exceeded on either meter the Series 7 controller will notify the building facilities manager that there is a possible leak for them to manually switch off the water supply and investigate the problem.	Suitable for any size of application this system is most suited to factories, warehouses or any other building which has security present or is occupied 24 hours a day. Some examples of applications which already have a Waterguard Two Metered Water Leak Detection System are: <ul style="list-style-type: none"> <li>• Supermarkets</li> <li>• Colleges and Universities</li> <li>• Medical Centres</li> <li>• Care Homes</li> </ul>
Waterguard Water Leak Prevention – 2 Meter System	Similar to the Waterguard Series 7 Water Leak Detection System in the way in which it monitors the water flow but includes an additional feature. A latching solenoid or powered actuator is also included in this system along with the Dual Series 7 controller and two pulsed water meters. This valve which is located after the internal water meter will automatically shut off the water supply and inform the appropriate personnel that a leak has been detected. In the instance of a building having additional booster tanks in the plant room an additional solenoid valve will be needed to cover these areas.	Again suitable for any size of application the mains meter Waterguard Water Leak Prevention System is recommended for schools, colleges and complex residential dwellings and any other properties which are left unoccupied for long lengths of time. Some examples of applications which already have a Waterguard Two Metered Water Leak Prevention System are: <ul style="list-style-type: none"> <li>• Hospitals</li> <li>• Universities</li> <li>• Government buildings</li> <li>• Shopping Centres</li> </ul>
Waterguard Wash Room PIR System	Designed to work with Waterguard solenoid valves these systems isolate the water supply in specific regularly frequented wet rooms. The unit is sensory activated switching the water supply on when a person enters the	These systems are used in any wet area; toilets, shower rooms, kitchens and even water fountains in addition to one of our two metered Waterguard Water Leak Series 7 systems to add extra protection and also conserve water.

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	room and off with an adjustable delay time when the person exits. The system also has two relay connections meaning it can also be used to activate a secondary mains power relay to isolate the lighting and mains supply into the same room or in conjunction with a Series 7 controller for extra protection.	
Waterguard Pulse Splitter	Designed to send an additional pulse signal to an existing Building Management System for the purpose of data logging from a pulsed water meter.	Any building which requires a separate pulse count to be sent to the BMS for the monitoring of water consumption.

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