

Low carbon building portfolio (briefing reports)

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Water Consumption, Water Pollution, and Innovation] al Affiliation] BREEAM Calculator Method The BREEAM calculator is used to determine the figures for building water consumption from the building components. The figures are obtained from use of component specifications and the usage factors. The calculator contains component data used to calculate the level of consumption of water. The water consumption levels are determined from the manufacturer's product data in order to determine the water consumption level of every building component such as the taps, urinals, showers, the baths, dishwasher, washing machine, and the waste disposal machine. The BEEAM calculator method defines the type of building and differences in range of water consuming activities of various components within a building. The other methods that are used are standard Wat 01 method, and alternative Wat 01 technique (Srinivasan, Ling, & Mori 2011). Using the Wat 01 calculator, domestic water rate of consumption of components is calculated and baseline performance compared, indicate efficiency of baths, dishwashers, urinals, and showers, specify rain water systems, and finally, specify water consumption rate in liters.

When the building tenanted areas are provided with water, then sanitary components must be specifies. Alternatively, the level of performance can be determined by use of fittings that are compliant with the baseline level of the BREEAM (Williams 2010).

Wat 02 water monitoring

Wat 02 method is used where water is supplied from private sources or boreholes. Areas of the building that consume 10% of water are fitted with meters that provide instantaneous readings, have connections to BMS, and monitor the rate of water consumption. Each of the meters gives a reading <https://assignbuster.com/low-carbon-building-portfolio-briefing-reports/>

based on the consumption level and each pulse water meters is connected to the BMS when the building is managed by the owner. There is no need for sub-meters especially where there are no monitoring benefits and there is no need to install a meter where simple calculations are required to determine the usage of water for a function (Michaelowa 2012).

Wat 03 water leak prevention and detection

Provide a leak prevention and detection system to detect water leaks on the water supply system. It is activated when water passes through the water system and identifies the changes in flow. The following flow control devices may be used, thus, time controller, programmed time controller, volume controller, and central control unit. Constant water supply is required and in case of emergencies, the water supply should be constant and should not be shut down and it may be necessary for the operation of other systems within the building chambers. Equipment used to detect the leakages within a building premise should be flexible and be able to detect different flow rates. When the premise is to be fitted by a company meter, then it is recommended to install a parallel meter to it that will detect any leakages (Vaze 2009).

Water efficient equipment Wat 04

Install a rain stat where drip irrigation sub surface system is installed and use a reclaim unit where vehicle wash systems are incorporated. In specified irrigation areas, ensure it complies with the following, drip irrigation incorporating soil moisture sensors, appropriately sized storage systems, and restricted planting species that can survive in dry conditions. Minimize all the risks as much as possible especially when vehicle wash systems are to be installed within the building premise. Install a rainstat in all the external

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areas recommended for subsurface drip irrigations. This phenomenon helps to prevent automatic irrigation of the fields during times of rainfall and minimizes wastages of water hence minimizing costs (Bulkeley, Broto, Hodson & Marvin 2010).

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