

PROPOSED GARDEN COTTAGE, COWFOLD STORES, THE STREET, COWFOLD, RH13 8BW

WATER NEUTRALITY STATEMENT

Water neutrality

The purpose of this statement is to demonstrate how water neutrality will be achieved for the proposed garden cottage.

Baseline calculation

The consented scheme DC/20/0018 and DC/23/1281 comprises 4 No. 2 bedroom, 4 person homes and 1 No. 1 bedroom, 1 person home.

The 4 No. 2 bedroom, 4 person homes consented by DC/20/0018 have a baseline water demand of 827.2 litres per day. This being the planning condition limit of 110 litres/person/day x Horsham District Council's occupancy rate for a 2 bed unit of 1.88.

The 1 No. 1 bedroom, 2 person home consented by DC/23/1281 has a baseline water demand of 92.7 litres/person/day which with the HDC occupancy rate of 1.32 gives a water demand of 122.4 litres per day.

The retail unit has a baseline water use of 161 litres per day

Total baseline water use from the residential is therefore 1,110.6 litres per day

Proposed demand

The proposed 2 bedroom, 2 person garden flat has a water demand of 69.9 litres/person per day on the basis of the Water calculator so based upon Horsham District Council approved occupancy rates of a 2 bedroom apartment of 1.88 the proposed use is 131.4 litres per day.

Total demand is therefore 1,242 litres per day from the consented 5 residential units, the retail unit and the proposed garden cottage.

Water reduction measures

Water efficiency toilets will be installed in the consented scheme using Grohe Adagio concealed cisterns with the full flush volume set to 4 litres per full flush and 2.6 per part flush.

12mm supply feeds to basin taps will limit flow rate to 4-5 litres per minute.

Baths on average will be 1600mm long by 700mm wide with a water capacity to overflow of 170 litres.

Shower heads will be Hansgrohe Raindance Select s150 designed to be ecosmart water saving and limit water use to 8 litres per minute.

Kitchen taps will be supplied with 12mm supply feeds to limit flow rate to 6 litres per minute.

Washing machines and dishwashers will be A+++ rated to be the most energy efficient and water efficient machines available.

Garden watering for the consented will be provided by rainwater harvesting.

A grey water harvesting system will be installed in the garden cottage to harvest waste water from hand basins, baths and showers. This will harvest at least 50 litres per day which will be filtered and 50% will be re-used for toilet flushing, washing machines, and outside taps in the development.

Conclusion

The effect of the water reduction measures outlined above is to reduce water consumption of the consent 4 No, 4 person residential units to 92.7 litres/day/person. Using the Horsham District Council occupancy rate for a 2 bed of 1.88 A total of 697.1 litres per day.

The garden flat will use 122.4 litres per day

The retail unit with one kitchenette with no dishwasher or washing machine and a WC with washhandbasin will use 36 litres/person/day. On the basis of 4 staff this is 144 litres per day.

The garden cottage proposed will use 131.4 litres per day

The total water use is 1,094.9 litres per day, a water saving of 15.7 litres per day.

Accordingly, the water efficiency measures on the consented 5 No. units and the smaller retail unit more than offset the water use of the new garden cottage leading to water neutrality.

Annexes

1. Water consumption calculations per person for the residential units.
2. Water consumptions calculations per person for the retail unit.