

STATEMENT ON WATER NEUTRALITY

As a result of Natural England's 'position statement' regarding water consumption and its effect on natural habitats, Horsham District Council requires that new dwellings are 'water neutral' insofar as they have no *significant* effect on water consumption in the District, and comply with Section 77 of Habitats Regulations.

Water neutrality can be achieved by designing measures to both offset consumption and also to reduce consumption.

The proposals for this development are therefore as follows:

A: OFFSET CONSUMPTION

This is achieved principally by rainwater harvesting, whereby natural rainfall is collected and used instead of mains water supplied from boreholes. An example is the rainwater system provided by RainHarvesting Systems (see: <https://rainharvesting.co.uk/>) that will collect rainwater from the roofs of the development and both clean it and store it for consumption.

The roof area for each dwelling is 110m², which indicates that a storage capacity of 3500 litres could be replenished throughout the year in an area like Horsham District. Average precipitation here is about 50mm per month (73mm in October, 40mm in February) and this equates to a minimum harvest of 4.4m³ or 4400 litres (February) or maximum 8.03m³ or 8030 litres in October. This is sufficient for a four person dwelling using water efficiently and, at 80l/pppd would be enough for eleven days without resupply.

However, reducing consumption by recycling water can further decrease the figure.

B: REDUCE CONSUMPTION

In order to reduce consumption, much water that is normally used for secondary purposes (such as showers, washing machines, toilet flushing) can be derived from grey water recycling, further reducing the demand from treated or mains supplies. Water for the irrigation of gardens and car washing will be discouraged on periods of low rainfall.

These systems are provided by (amongst others) Aqua-lity (see <https://www.aqua-lity.co.uk/>), who offer an installation that will make grey water available for secondary non potable water usage.

C: PROPOSED INSTALLATION

The installation for each dwelling will comprise:

- a) Roof area of 110 m² providing rain water to a 3500 litre underground tank situated at the front (drive) side of each property for ease of access and maintenance.
- b) A filtration and cleaning system that will provide clean water to all appliances within the dwelling, such as 'Rainsava' by Rainharvesting, which is BS8515 compliant.
- c) A grey-water recycling system, as may be provided by Aqua-lity, will be connected to all appliances in the dwelling, ensuring that water consumption is minimised to well less than 40 litres per person per day.
- d) Sanitary provision will comprise showers only (no baths) and WCs with water saving flush.