

Surface Water Drainage Statement

Proposed Change of Use of former Agricultural Building to Business Use – Venn View Barn, Chains Road, Sampford Peverell

- The site is in open countryside, and is not in an area liable to flood from any sources of flooding including surface water, ground water or flood zones 2 and 3.
- The development involves the conversion of an existing building, and is not likely to increase flood risk locally.
- The site is not within a Critical Drainage Area.
- Hard surfaces are already in existence on the site; the development will not result in any change in that respect.
- Water butts will be used to harvest rainwater off the roof slopes. There will be a filter on the inlet of the rainwater harvesting tank to remove fine particles and impurities (this will need to be replaced periodically). Roofwater enters the tank and is stored; it will then leave the tank by gravity. The capacity of tanks will be reflective of the advice in the CIRIA SuDS Manual.
- Along with the benefit of saving the cost of water, harvested water will be used for irrigation and washing. Regular use will be made of this water, ensuring that there will be a capacity for accepting further rainwater (the intention is to accommodate at least the first 5mm of rainfall). This will also help limit the impact of the roof/building upon the pre-development natural runoff in typical rainfall events, so that overall the proposal will match, or at least be close to, that flow rate.
- The land slopes gently downwards from north to south, and towards the east. There is no watercourse in close proximity to the building. The ground around the building will be retained as existing (apart from clearance of brambles etc), to allow for good infiltration of roofwater that is not harvested.
- Using Greenfield Runoff Rate estimation calculator, the site is indicated to be in hydrological region 8, and has a Standard Average Annual Rainfall value of 1010mm. As the calculator only starts at a site of 0.1 hectare, the following figures have been revised to reflect the scale of the application site, which is 0.018ha. The calculation indicates a QBAR flow/runoff rate of 0.074, 1 in 1 year event 0.058, 1 in 100 year event 0.18.
- It is considered that the development can accommodate suitable drainage to deal with roofwater harvested, and to ensure flows from the site are commensurate to existing greenfield flows, and therefore impacts upon flooding are minimised.