

Water Supply

In the renovation of old farm buildings as Mucknell Abbey, rainwater harvesting was installed to augment the mains water supply.

Mains Supply

The existing mains water supply was too small to supply the whole site, and therefore a storage tank and booster set were installed. The storage tank offsets the difference between supply and demand, and is sized to provide half a day's peak supply. The booster set is a variable speed pump, which adjust itself based on the required duty.

There are meters to measure mains supply into the storage tank, and consumption of the boosted supply, distinguishing between the north and south sides of the buildings.

Rainwater Harvesting

Rainwater is collected from the slate roofs of the buildings via gutters and down pipes, connected underground via a conventional gravity drainage system, and converging by the boiler shed on the west side of the buildings. At this point, vortex filters siphon off clean water to the rainwater harvesting tanks, whilst discharging leaves and debris to the surface water drain.

The harvesting tanks are located below ground in order to keep the water cool and avoid biological growth. The tank which services the toilets and six outside taps holds 5,000 litres, and a second tank holding 45,000 litres stores water for use by the fire services. Overflow water from the tanks is discharged to the surface water drainage system. If the water level in the first tank falls too low, a float triggers a top-up feed from the boosted cold water supply.

There are meters to measure consumption harvested rainwater, distinguishing between the north and south sides of the buildings.

Water Butts

On the east side of the main building and in the maintenance yard, rainwater is diverted into water butts for use in the kitchen garden and watering specimen trees. Water for the trees is also taken from the swales.

Borehole

In the orchard there is an old borehole. We are investigating the quality of the water, and whether it can be used in the kitchen garden.

