

Welcome Break, Wheatley

SuDS used

- Permeable pavement
- Filter drains
- Swales
- Filter strips
- Retention ponds
- Wetlands

1. Location

Welcome Break, London Rd, Wheatley, Oxford OX33 1J.

2. Description

This Welcome Break services is situated at J8a of the M40. It is a 16.7 ha site where SuDS were incorporated back in 1997. SuDS were used to help manage flood risk, provide water quality improvements and add amenity value.

Approximately 4.2 ha are roofed or paved. The roofs drain into water features. The permeable carpark is lined, carpark runoff is treated in the sub-base, discharged to a swale, then into a pond and reed bed. Waste water is managed using a series of lagoons and reedbeds.

The petrol station drains into a petrol interceptor whilst the HGV park has traditional asphalt and is drained by a filter drain then into the ponds and a wetland.

Total annual maintenance costs for the site are estimated at £917 for the SuDS compared to £2800 for conventional drainage (based on estimates in 2001). The bricks used for the permeable car park had become impermeable by 2000, one year after tests in 1999, with a lot of silt, moss and oil on the surface. However, infiltration through the gaps between the bricks remained high. The lack of infiltration through the bricks was not affecting the overall hydraulic performance of the system.

3. Main SuDS components used

The following SuDS components were used on this site:

- Permeable pavement
- Filter drains
- Swales
- Filter strips
- Retention ponds
- Wetlands