

CASE STUDY: GLASS CRUSHER AT GOLF COURSE PRODUCES COURSE SAND

Green
Tourism



Audit Year: 2010

GTBS Award: GOLD

Business Name: Carden Park Hotel
Golf Resort and Spa

Business Type: Hotel

Location: Cheshire, ENGLAND

Website: www.cardenpark.co.uk

Carden Park, a member of the De Vere group, was audited in December 2010 and was found to have already implemented so many great practises that it achieved the GOLD award. Key to their success was the great green team comprising enthusiastic and knowledgeable staff from the various departments and which considered every aspect of sustainability on a very diverse site. This includes two championship golf courses, a variety of buildings catering for leisure stays, conferences and weddings, a swimming pool and leisure centre, restaurants and a vineyard. This case study focuses on the on-site glass crusher, seen pictured above with Hamish Ferguson the general manager, which in a matter of seconds turns all glass bottles and jars from the hotel into sand to be reused on the golf course and surrounds.

Environmental Benefits

The benefits of recycling glass are a reduction in landfill waste, a reduction in raw material use, and the reduction in energy and water required for extraction and production. Further benefits of the on-site glass crusher are the elimination of the environmental impacts of transportation of the used and then recycled glass: noise and air pollution, fuel consumption.

Economic Benefits

The machine cost £10,000 and requires annual maintenance of approximately £1,000. The glass crusher is estimated to use around 3285 kWh of electricity at a cost of £263 per year. The cost of glass collection is £10,400 per year and the cost of sand delivered to the golf course and gardens is £1560. Put together, the payback time is 11 months and 1 week, after which time the site is making an annual saving of £10,697.

For sites without golf courses, the sand (inorganic and not considered a waste product) can be used in a variety of ways such as gritting, water filtration, sand blasting and paving.

Other On-Site Initiatives

- Over 20,000 native trees planted, 3 acres of wildflowers, 50 bird and bat boxes, wildlife ponds maintained, work with local group to remove Himalayan balsam.
- Heatsavr liquid pool cover and heat recovery in the pool area.
- Extensive BMS
- Key cards for lights in rooms
- Hotel waste water treated on site and used to supply golf course.
- On-site 3 acre vineyard with wine bottled and sold in the restaurant.

Web Links

Glass crushing machine supplier: www.beecycle.co.uk
Waste organisations: www.wrap.org.uk, www.zerowastescotland.org.uk
DEFRA waste resources: www.defra.gov.uk/environment/waste