

2007-2008

Land, Conservation Access and Recreation



The environment is at the heart of Southern Water's operations and we place great importance on protecting the region we serve and conserving its wildlife

Land, Conservation, Access and Recreation

Southern Water area of operation



Considerate construction

We take extensive measures to protect and enhance wildlife, habitats and archaeological features when carrying out major engineering projects, such as laying pipelines or building new treatment works. To achieve this, we carry out environmental and archaeological investigations before construction work begins, often in partnership with expert organisations.

Our conservation partnerships have included a successful association between our Biosolid Recycling Team and Natural England to safeguard about 350 Sites of Special Scientific Interest (SSSIs) in and around our region when we are recycling wastewater treatment by-products in the form of soil conditioner and fertiliser. These sites are protected under UK and European law and, in partnership, we have developed a new “traffic light system” to help conserve them.

Potential risks are identified for each site before it is classified into one of three groups – red, amber or green. Red sites require “assent to work” from Natural England and the submission of a full risk assessment. Amber classifications require us to consult Natural England for advice on whether formal assent is needed. A green classification means no assent is necessary and standard operating precautions will suffice. The new system and regular contact between both organisations

has greatly reduced the risk of unintentional damage to the SSSIs.

A challenging project to lay pipes under the Solent to transfer drinking water to the Isle of Wight from Hampshire required extensive environmental planning. The Cross Solent Main Replacement Scheme involved working in parts of the New Forest National Park, Areas of Outstanding National Beauty on the Isle of Wight and International Conservation Areas along both coastlines. To protect these areas, we used a specialist pipe-laying technique called directional drilling, similar to a mole burrowing a tunnel, to avoid disturbing flora and fauna.



Other environmental work included the use of natural substances, such as bark, seaweed and seashells, to line tanks and help reduce smells at Peel Common Wastewater Treatment Works in Hampshire. Feasting bugs living on seaweed and wood treat the hydrogen sulphide gas that causes smells before the gas is released to the atmosphere after passing through carbon filters. In seashell tanks, the shells develop a biological film after being repeatedly washed

by a pumped system. The film, along with calcium present in the shells, neutralises gases.

Our proposals for a modern wastewater treatment works and sludge recycling centre at Peacehaven in Sussex also incorporate environmental measures. New plans, supported by East Sussex County Council, include a green roof capable of supporting living grass and designed to blend in with the landscape of the South Downs. The whole £300 million scheme would, for the first time, fully treat wastewater from Peacehaven, Telscombe Cliffs, Saltdean, Ovingdean, Rottingdean, Woodingdean and Brighton and Hove, bringing environmental improvements to bathing water quality along this stretch of the Sussex coast.

Another Sussex scheme on ecologically-sensitive land included measures to protect dormice. Our project to protect homes from flooding in Barns Green, near Horsham, involved installing six dormouse boxes and 18 dormouse tubes in woodland and hedgerows around the construction site to provide alternative habitats.

We diverted a key sewer to support the work of the Wey and Arun Canal Trust to restore a section of the waterway in the West Sussex village of Loxwood, near Billingshurst. The work is part of the trust’s project to restore the canal, which historically ran between the Thames and the South Coast and was known as ‘London’s Lost Route to the Sea’. The trust’s aim is to restore a navigable link between the River Wey and River Arun for public use.

Land, Conservation, Access and Recreation



Archaeology

In Brighton and Hove, we worked with Archaeology South-East, a division of London's Institute of Archaeology, as we carried out the work of building an additional sewer in Lansdowne Place, between Western Road and Brunswick Terrace, and an underground pumping station in Brunswick Terrace.

The excavations, of up to six metres deep, will help our understanding of the evolution history of man, the development of the modern landscape and global climate change. This unique opportunity to look back as far as the Ice Age has included finds of buried beaches and cliffs occupied by Neanderthal man up to 250,000 years ago.

In Kent, we carried out a series of investigations with Canterbury Archaeological Trust at Northfleet Wastewater Treatment Works, where discoveries included flint arrows from the Late Neolithic and Early Bronze Ages and animal bones. A large quantity of flint recovered from the site will significantly contribute towards knowledge of the area's history.

Elsewhere in the county, a partnership with Wessex Archaeology resulted in the discovery of ancient artefacts along a pipeline route between our outfall at Foreness Point in Margate and our treatment

works in Weatherlees Hill, near Sandwich. These ranged from a hoard of Bronze Age axes to a medieval bakery and Roman burials.

Excavations at Richborough in East Kent, ahead of the installation of a new pipeline, unearthed the remains of the settlement of Lowton. Working with Canterbury Archaeological Trust, we investigated a series of pits and ditches and recovered coins and pottery dating to the late third and fourth centuries AD, a large amount of Roman tiles and domestic items. The village has previously been named as a potential site for the lost harbour of Roman Richborough.

Woodlands

We worked hard to protect woodlands and had a woodland management plan in place, which included working with experts Fountain Forestry.

At the Great Sanders Estate at Powdermill Reservoir in East Sussex, a survey was carried out on felled and restocked sites as part of the Forestry Commission Woodland Grant Scheme. Safety inspections were carried out on trees next to paths and roads, boundary fences and gates were surveyed and the car park was trimmed and cleaned.

At Darwell Reservoir in East Sussex, regular inspections and repairs were made to a fence around two coppiced areas to protect the woodland from deer. In addition, safety inspections were carried out on trees next

to footpaths and roads, the car park fence was repaired and areas around the car park and paths were trimmed and cleaned.

In Sussex, more than 1,000 trees were planted in a project to conserve Britain's rarest native timber tree, the black poplar, and its wet woodland habitat. The work was organised by the Sussex Otters and Rivers Project, a partnership between Southern Water, the Environment Agency, Sussex Wildlife Trust and South East Water. Nearly 70 black poplars, taken as cuttings from the remaining 33 mature trees in Sussex, were among those planted to help recreate one of the first wet woodlands with native poplars in the county.

Biodiversity and species

One of our most important roles as guardian of the environment is to protect SSSIs in our region. We also undertook projects in partnerships to protect and enhance biodiversity at a variety of sites.

These projects included supporting the Newport Rivers Group, in conjunction with the Environment Agency, in an on-going project to restore Carisbrooke Pond on the Isle of Wight. Volunteers have helped to create a large wetland area to improve both habitat and species diversity as well as provide a public space for recreation and education. Marsh marigolds, purple loosestrife, bog bean and water mint have been planted to attract wildlife. Volunteers are hoping to attract species such as Daubenton's bat, great crested newts and brown trout.



We also worked closely with the Environment Agency to reinstate habitats for water voles along a pipeline route in Thanet, Kent, where their presence was discovered during survey work.

In Sussex, a dew pond built in the 1930s is enjoying a new lease of life at Southerham Farm in the Malling Down Nature Reserve, which is renowned for its chalk grassland, rare flowers and butterflies. We teamed up with Sussex Wildlife Trust to clean, weed and repair the pond to attract more wildlife to the area.

Land, Conservation, Access and Recreation



Elsewhere in the region, we have undertaken work to safeguard protected species. This includes monitoring a rare greater horseshoe bat, which has frequented one of our sites for several years. A professional bat consultant was called in and will return to give the creature a health check and confirm its sex. Its progress will then be monitored.

We also acted to save a family of great crested newts, a protected species under European law, when they became trapped at Brede Water Supply Works in East Sussex. The newts had been trying to cross the site to shelter in woodland during the winter. They were rescued and cared for until the weather improved when they could be safely released nearby at the start of the breeding season.



Access and recreation

During our Cross Solent Main Replacement Scheme, pupils from Cowes Primary School on the Isle of Wight were able to see first-hand the work we were undertaking to lay new water pipes under the Solent.

The youngsters joined a Southern Water boat trip to visit the barge laying the new pipelines and our experts were on hand to answer questions about the project and its environmental challenges. Our website featured video clips, picture galleries, podcasts and a blog while the project's progress could be followed via three webcams located on the shore at Lepe in Hampshire and Gurnard on the Isle of Wight. In addition, we held our first live webchat when schoolchildren could ask the project team questions.

In Kent, we built a bird hide with wheelchair access at the newly-refurbished Foreness Point Treatment Works in Margate. The hide, on top of the cliffs, gives an excellent vantage point for the local Royal Society for the Protection of Birds group to catch a glimpse of migrating seabirds and resident waders as well as regular winter visitors such as purple sandpipers and turnstones.

At Portslade Infant School in Sussex, we helped to create a tunnel from willow trees and plants, offering a cave for the children to use for nature sessions and to develop their imagination.

Key sites for public access and recreation were our five surface reservoirs in Sussex, Kent and Hampshire. Our largest reservoir, Bewl Water on the Kent/Sussex border, provided a wide range of leisure and recreational facilities run by Kent and Sussex Attractions. These included fishing, cycling, sailing, a visitor centre, conference venue and restaurant.

Darwell Reservoir in East Sussex provided a small car park and improved pedestrian access.

Public recreation areas, car parks, information signs, signposts and picnic benches were available at Powdermill Reservoir.

Sailing activities were available at Weir Wood Reservoir, near East Grinstead in West Sussex, and the Millennium Walk gave spectacular views across the water.

In Hampshire, our Testwood Lakes Centre housed a permanent exhibition on water, wildlife and conservation. Guided walks, events and activities took place throughout the year. The lakes attract tufted ducks, coots, gadwalls and grey heron during winter and lapwings, shelducks and house martins during spring and summer.

In Brighton, our Victorian sewerage system was voted the Best Place to Visit in the Brighton and Hove Business Awards. The guided sewer tours have become a popular attraction and took place from May to September.