



In this report we describe the work we have undertaken to manage the conservation of our natural and built environment to ensure we meet our responsibilities for Conservation, Access and Recreation (CAR).

## CASE STUDY

### Construction Management



To help us ensure we meet our obligations we produced compliance plans for each site at which we will be carrying out construction work. We identified 98 sites for assessment to see if construction might affect a rare and protected species of amphibian, the great crested newt.

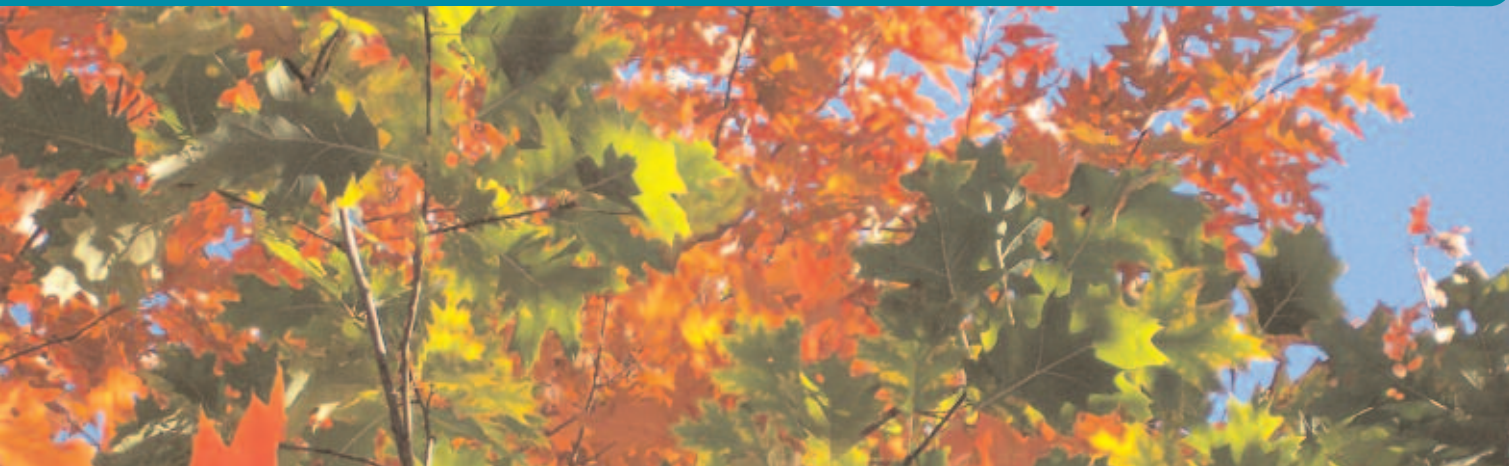
We identified ponds and suitable habitats near each of these sites to make sure surveys are carried out where appropriate. This will help ensure progression of our capital investment programme and at the same time safeguard the newts and their habitat.

We commenced construction of our new wastewater treatment facilities serving Margate and Broadstairs in May 2005. This included work to prevent reptiles from being harmed. The work involved building protective fences and moving reptiles out of the construction area.

The unexpected presence of a nesting partridge with 11 eggs required us to set up an exclusion zone to allow the chicks to hatch and fledge.

The reinstatement of the route of pipeline at Cliftonville and Joss Bay will include sowing trefoil and red clover to provide food (nectar and pollen) for a nearby population of shrill carder bees. We also used a tunnelling technique to protect an area of chalk grassland, designated as a Site of Nature Conservation Interest, for plants such as man orchids.





## Countryside Stewardship Schemes

[www.bto.org](http://www.bto.org)  
**British Trust for Ornithology**  
[www.wildlifetrusts.org](http://www.wildlifetrusts.org)  
[www.english-nature.org.uk](http://www.english-nature.org.uk)  
[www.forestry.gov.uk](http://www.forestry.gov.uk)  
[www.butterfly-conservation.org](http://www.butterfly-conservation.org)



- The Government's Countryside Stewardship Scheme (CSS) aims to improve the natural beauty and diversity of the landscape, to restore targeted landscapes, their wildlife habitats and features, and to improve opportunities for public access.

We continued to manage some of our land under Countryside Stewardship Scheme agreements at various sites including:

- **Yew Hill Water Service Reservoir, Hampshire** - we continued to graze the grassland to provide habitat for a range of species of butterflies;
- **Lake Common, Isle of Wight** - as part of the management plan we undertook work in the woodland to remove scrub to help maintain plant diversity. We also cleared a number of ditches to help water-based plants and animals, particularly water voles;
- **Sandown Water Meadows, Isle of Wight** - we continued to undertake reedbed management;
- **Knighton Down, Isle of Wight** - our work to control scrub continued to protect and maintain this valuable area of chalk downland; and
- **Bewl Water Reservoir, Kent** - we restored hedgerow using traditional hedge laying techniques.

## Woodlands

- The Government's Forestry Commission provides grant aid funding through the Woodland Grants Scheme to help with the creation, restoration and management of woodlands for both their wildlife value and public access.
- Coppicing is a traditional form of woodland management now utilised for conservation and timber production.
- Coppicing involves the periodic cutting of trees using traditional felling techniques, stacking of timber and leaving brushwood to rot down. This prolongs the life of the trees and attracts a diverse flora and fauna.
- Thinning is a management technique used to enhance woodland by creating gaps in the canopy to allow the remaining trees to grow more strongly.
- Charcoal is produced by burning wood very slowly and in the absence of air. Charcoal has many uses including water purification, artistic drawing and commonly as a fuel for barbecues.
- Clear Felling is the felling of a whole woodland, or a part of the woodland, at one time.
- Ancient woodland is considered to be land that has remained as woodland continuously since AD 1600.
- A copse is an alternative word for coppice woodland.
- The canopy is formed from the tops of the trees and is the uppermost layer of the woodland.

A number of our sites support woodlands. We help to manage and maintain some of these woodlands with the aid of the Forestry Commission's Woodland Grant Scheme.

For example, at Otterbourne Water Supply Works, Hampshire, we started to fell ash trees selectively in Oakwood Copse (an area of woodland). This will allow shrubs and plants closer to the ground to receive sunlight, helping to increase the range of species able to grow in the woodland. Similarly, we continued to coppice hazel in Sparrowgrove Copse and, using the off-cuts that might otherwise have been wasted, we produced a modest quantity of charcoal for local distribution.

Our woodland management work also continued last year at the Great Sanders Estate at our Powdermill Reservoir, East Sussex. We clear felled spruce trees and carried out thinning and coppicing work. This work helped us meet our aims in managing the woodland for its biodiversity value. For example, by maintaining a diversity of habitats we helped conserve scarce plants such as the greater broomrape. This is an orchid-like plant that can grow up to half a metre tall and is only found in three places in Sussex, including Powdermill. We also replanted some cleared areas with oak, hazel and hornbeam to help restore areas of ancient woodland.

The management of hornbeam coppice at Darwell Reservoir, East Sussex, continued this year. As part of this work, we constructed a lightweight, temporary, deer fence to exclude deer and prevent them from eating the new shoots and regrowth.



## Biodiversity

[www.defra.gov.uk](http://www.defra.gov.uk)

[www.english-nature.org.uk](http://www.english-nature.org.uk)

[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)



- Biodiversity (short for biological diversity) describes the complexity of the living world. Biodiversity encompasses all living things and the relationships between them.
- Sites of Special Scientific Interest (SSSIs) include examples of the country's best wildlife sites.
- The Department for the Environment, Food and Rural Affairs (Defra) has a public service agreement target that 95% of all land designated as SSSI should be in favourable or recovering condition for its nature conservation interest by 2010.
- English Nature (EN) defines "favourable condition" as SSSI land that is being adequately managed to conserve its nature conservation interest, but where there is still scope for the enhancement of the site.
- Conservation Management Plans (CMPs) are documents that have the overall aim of enhancing ecological conditions of the local environment.
- Scrub can be described as scattered bushes dominated by locally native shrubs and young trees usually less than 5m tall.
- Reedbeds are wetlands dominated by stands of common reed where the water table is at or above ground water level for part of the year. They tend to incorporate areas of open water and ditches.

As we reported on in last year's CAR report, we undertook ecological surveys for all our SSSIs in 2004. To follow on from this initial work we prepared Conservation Management Plans for each of our SSSIs over 2005-2006. These plans will guide the management of our most ecologically sensitive land to ensure they achieve, or remain in, favourable condition.

## Species

- A dam is the barrier constructed across a watercourse to control the level of water (and create reservoirs).

This year we installed a further 28 bird boxes to provide additional nesting opportunities for birds such as sparrows, tree creepers and house martins at our operational sites. We also erected four bat boxes to provide additional roosting opportunities at our Horsham Wastewater Treatment Works, West Sussex.

The shallow areas of open, wet mud (sometimes known as scrapes) we created at Bewl Water Reservoir in Kent, below the dam, helped four pairs of lapwing to nest, with four chicks being raised.

Skylarks also bred successfully. Red kite was recorded for the first time at Bewl Water which, along with buzzards and hobbies (birds), used the wetland areas for feeding.

Another new record for Bewl Water was the presence of a keeled skimmer dragonfly, only the second site in Sussex where this species has been recorded. This has brought the total number of dragonflies and damselflies recorded on the site to 25.

This year we entered Bewl Water into the British Trust for Ornithology (BTO) Business Bird Challenge and, along with the 85 species of birds recorded on the site up until the end of March 2006, approximately 90,000 common gulls were recorded on the reservoir in February 2006.

Following our 2004 success in the wetland category of the Community Awards of the BTO Business Bird Challenge, we have re-entered Testwood Lakes Reservoir, Hampshire, into the Challenge for 2006.

In addition to the 81 species recorded so far, we have continued to make the site more attractive to birds by constructing a raft for tern, and a sand martin bank complete with nest holes. We also installed new bird identification boards to cater for different levels of bird knowledge and help people identify the birds they can see from our lakeside hide. Our visitors may have been lucky enough to see some scarce birds that visited the site including: hawfinch, great grey shrike, osprey and a red throated diver. We have also continued our programme of recording wildlife on the site, which now includes 18 species of dragonfly and 21 species of butterfly.

As part of the new development at Ropetackle Street in Shoreham-by-Sea, West Sussex, we installed sparrow terraces and a bird box on our pumping station for wagtails to help encourage birds to breed in the area.





## Access and Recreation

- A gully is a deep ditch or channel cut in the earth by running water after prolonged downpours.

We continued to offer a wide range of activities for our visitors to enjoy at Bewl Water, including trout fishing, wind surfing and trips on our boat. We also ran a number of charitable and fundraising events throughout 2005-2006. These included the Royal National Institute for the Blind's (RNIB) aerial slide and the Dragonboat festival.

We continued to help and encourage visitors by maintaining and improving access to and across a number of our sites so that everyone could enjoy the environment and wildlife.

We received annual management grant aid for maintaining our car parks and permissive footpaths through our woodlands at Powdermill Reservoir, and paths through our woodlands at Redgate Mill and Darwell. The unauthorised use of quad bikes at our Darwell Reservoir, East Sussex, caused a nuisance for other people using the site. We erected post rail fencing to try and prevent quad bike access to the woodlands.

Improvements undertaken during 2005-2006 to improve access for the less able-bodied to Testwood Lakes ensured that the paths from the centre to the bird hide were suitable for wheelchairs. We removed steps and slopes, and built a boardwalk across the Alder gully. We also installed a ramp to enable wheelchair access to the bird hide overlooking the lake.

## Community Involvement and Education

- We continued to support our partnership with Hampshire and the Isle of Wight Wildlife Trust in developing Testwood Lakes as a place where visitors could come and enjoy the wildlife that our nature reserve offers. To help us in our efforts, we now have a regular group of 12 volunteers, with additional occasional volunteers who help with the management of the site. Last year the volunteers undertook tasks such as willow and hazel coppicing, pond clearance, path work and installing benches.

Our education programme continued to expand with a total of 58 school day visits occurring over 2005-2006. This amounted to nearly 2,000 pupils and adults coming to Testwood Lakes. We also started to develop an adult education programme, which last year included courses in 'moth identification', 'beginning bird watching' and the 'dawn chorus'. These attracted 65 participants during 2005-2006.



## Archaeology and the Built Environment

- A hoard is a collection of historic artefacts buried together at the same time, for example, coins and jewellery.

The planning and preparation for the construction of our new wastewater treatment works for the Brighton and Hove area continued. As part of these preparations we assessed all the possible impacts the new scheme could have on the environment and identified ways in which these impacts could be avoided or reduced. These assessments were recorded in an Environmental Statement. As part of this process, we carried out an assessment of the potential impacts of the scheme on the archaeology of the area. The assessment revealed the presence of two prehistoric field systems, relics of late Bronze Age to early/middle Iron Age farming. The Environmental Statement explained that some of the archaeological features could be protected by landscaping, i.e. the archaeology remains undisturbed underground and underneath the surface landscaping. Where this is not possible, the archaeological features will be recorded by excavation.

The ongoing construction of our Margate and Broadstairs Scheme also included a programme of archaeological investigation. Excavations along the pipeline route revealed fragments of pottery dating from the early Prehistoric to the Medieval period. A flint hand axe from the early Stone Age was found. Human remains and associated grave goods including pottery, glass and metal work, from four Romano-British cemeteries were also uncovered.

We carried out archaeological investigations ahead of the construction of a first time sewerage scheme for New Romney, Greatstone/Lydd-on-Sea over 2005-2006.

Amongst the finds unearthed during the investigation were large quantities of pottery and metal, including buckles, blades and fish hooks. We found 11 Medieval silver pennies dating from the 12th – 14th centuries. Some had been cut in half and quarters to make half pennies and farthings. We also discovered a small hoard of silver coins including groats, half groats and a penny dating to Henry VIII's reign and deposited around AD 1547-48. A total of 47 graves were found, of which 39 were excavated. Once the bones have been analysed they will be reburied in New Romney.

As well as our commitments to protect archaeology during the delivery of our capital programme, we also celebrated the Bronze Age history of our site at Testwood Lakes Reservoir, Hampshire. In August 2005, the Testwood Lakes Event was attended by 1,300 people who watched demonstrations in hurdle making, wattle and daub construction, sheep shearing, weaving and spinning. There was a reconstruction of an archaeological dig to give children the chance to find buried artefacts. Visitors could also handle Bronze Age tools and clothes.