

Land, Conservation, Access and Recreation

Our commitment to the management and conservation of land is inherent in a broad range of our activities, from contributing environmental advice to our construction programme, to ensuring suitable land has recreational and amenity value for local communities.

In this section, we outline our responsibilities for the management and conservation of our natural and built environments as well as meeting our requirements for reporting on Conservation, Access and Recreation.

Conservation of our Natural and Built Heritage

We continued to support the delivery of our capital investment programme with site-specific environmental advice during the design and construction of our schemes. This input typically comprised preliminary

environmental appraisals, the production of site environmental management plans, and audits of site plans during construction. We also sought to integrate wildlife enhancement strategies where appropriate.



Coppicing as part of the Countryside Stewardship Scheme at Bewl Water Reservoir

The Department of the Environment, Food and Rural Affairs (Defra) is the central Government department whose remit spans issues relating to the environment, food and rural affairs

We are required by Defra to report publicly on Conservation, Access and Recreation

English Nature is the Government body responsible for the promotion and conservation of England's wildlife and natural features

The Environment Agency (EA) is the key public body for protecting and improving the environment in England and in Wales. The EA work in diverse areas such as flood defence, pollution control, town planning, agriculture and waste

Case Study

Bewl-Darwell Water Transfer Scheme

From the onset of the Bewl-Darwell pipeline project we were committed to ensuring that any potential short or long-term environmental impacts from the project were either eliminated or mitigated. In order to achieve this we commissioned extensive surveys for flora and fauna. Through these surveys we recorded various habitats of nature conservation importance including unimproved grassland, marshy grassland, semi-natural broad-leaved woodland and several hedgerows with wildlife importance.

We also recorded badgers, dormice, great crested newts, reptiles, breeding and over-wintering birds, together with some invertebrate species, defined as Nationally Scarce, along the pipeline route. In light of these findings we produced an extensive mitigation programme to protect these habitats and species.

To ensure the level of disruption to wildlife was kept to a minimum, we planned the pipeline route to avoid sensitive locations such as reptile habitats, sections of ancient woodland and an area of

archaeological importance. The programme took account of the seasonal activities of wild animals and birds. For example, hedges were removed and trees trimmed in early spring to minimise the risk of disrupting nesting birds. We also installed fencing to protect great crested newts along both sides of the construction route and made sure that the work took account of any possible effects on dormice. We undertook work which had the potential to affect badger setts under an English Nature licence.

We also contributed to mitigation projects of benefit to local communities affected by the scheme. These projects included habitat enhancement for pearl bordered fritillary at Powdermill Reservoir, bridleway improvement at Bewl Water and some improvements to a small park at Robertsbridge.

We used wood that we cut during bridleway improvement work to create habitats for invertebrates and small mammals. At the park, we provided benches made of local sustainable oak, and planted hedges with native and local species.

Links: www.defra.gov.uk | www.english-nature.org.uk | www.environment-agency.gov.uk | www.wildlifetrusts.org

British Trust for Ornithology: www.bto.org | www.english-nature.org.uk | Royal Society for the Protection of Birds: www.rspb.org.uk

Sussex Biological Records Centre: www.sxbrc.org.uk | Kent and Medway Biodiversity Records Centre: www.kmbrc.org.uk

Butterfly Conservation: www.butterfly-conservation.org.uk | The Forestry Commission: www.forestry.gov.uk | www.ukbap.org.uk

Our landholdings support a wide range of valuable habitats including chalk grassland, wet woodland, ancient woodland, heathland, and lakes with areas of marsh and reedbeds. In the past year, we continued to undertake work to enhance the biodiversity and understanding of the ecological value on our sites.

Key Performance

- We registered Testwood Lakes and Weir Wood reservoirs for the British Trust for Ornithology (BTO) Hanson Business Bird Challenge 2004
- We published our Corporate Biodiversity Action Plan (CBAP) over 2004-2005
- We erected 18 barn owl boxes meeting one of our CBAP targets
- We undertook three full Environmental Impact Assessments (EIAs)
- We sponsored the production of a Sussex Dragonfly book

Biodiversity Action Plan

We published our Corporate Biodiversity Action Plan (CBAP) over 2004-2005. This CBAP contains objectives and action plans for habitats and species. These include habitat plans for

- Ancient and wet woodlands
- Chalk, neutral, acid and wet grassland
- Heathland
- Standing open water
- Fen swamp and freshwater marsh

We have species action plans for southern damselfly, bullhead (a fish), early spider orchid, barn owl, otter and pearl bordered fritillary.

Approximately 920 hectares of the land we own have tenancy agreements designated as Sites of Scientific Interest (SSSIs). An English Nature (EN) survey estimated that 72.8% of our land holdings are in favourable or recovering condition. Approximately 27.2% will require additional conservation management to bring them to favourable status. We verified this estimate through ecological surveys of our SSSIs in 2004. We identified the key issues affecting the sites.



A wildflower meadow at Bewl Water reservoir

Biodiversity (short for biological diversity) describes the complexity of the living world. Biodiversity encompasses all living things and the relationships between them

A Biodiversity Action Plan (BAP) is a framework for achieving the conservation of biodiversity targeting specific protected habitats and species. BAPs can be prepared at national, regional and local level

A Corporate BAP is a biodiversity action plan prepared at a company level

Sites of Special Scientific Interest (SSSIs) include examples of the country's best wildlife sites

The Government Department for 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 nature conservation interest by 2010

Favourable condition is defined by English Nature (EN) 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

Recovering condition is defined as SSSI land not yet adequately managed to conserve its nature conservation interest, but where all the necessary management measures are in place and, provided that the recovery work is sustained, will reach favourable condition in time

Countryside Stewardship Scheme

We continued to manage our land under the Countryside Stewardship Scheme (CSS) at various sites including:

- Bewl Water reservoir on the Sussex/Kent boundary
- Yew Hill in Hampshire
- Lake Common, Sandown Water Meadows and Knighton Down on the Isle of Wight

In 2004, we also produced a Conservation Management Plan for Lake Common to help target management objectives for the site in the next five years.

At Bewl Water we put a further 10.5 hectares of land into the existing CSS over 2004-2005. We continued to manage parts of the site by animal grazing to encourage wildlife. We undertook hedgerow restoration using traditional hedge laying techniques. We also continued to create shallow ponds to provide habitat for species such as wading birds, dragonflies and damselflies.

Woodland

In order to help manage our sites in an environmentally friendly way and improve public access, we have Woodland Grant Scheme (WGS) agreements in place with the Forestry Commission at a number of our sites. Sites with WGSs include:

- Darwell Reservoir, Powdermill Reservoir and Redgate Mill Wastewater Treatment Works in East Sussex
- Otterbourne Water Supply Works in Hampshire

We received Woodland Planning Grant agreements for three of these sites.

At Powdermill Reservoir about five hectares of woodland were coppiced this year and some areas were thinned to encourage woodland ground flora. A special scheme to enhance habitats for butterflies was also adopted, particularly for pearl bordered fritillary, one of our Corporate Biodiversity Action Plan (CBAP) species. In 2004 the work included ride maintenance and heathland management.

Over 2004-2005 we managed Darwell Reservoir site through rotational coppice for the first time in 25 years, as well as woodland thinning and the creation of new woodland on a former field. We carried out a survey for pearl bordered fritillaries on this site. We hope that following suitable habitat management, this species will colonise this site in the future.

At Redgate Mill Wastewater Treatment Works woodland management included thinning ancient woodland to encourage native woodland and ground flora to develop as well as tree regeneration.



A pearl bordered fritillary butterfly

Nature Conservation

At Otterbourne Water Supply Works in Hampshire we continued to manage the site to improve its nature conservation value. We carried out river restoration work and promoted our CBAP species southern damselfly. Over the past two years we promoted the site's areas of woodland with rich woodland flora under the Woodland Grant Scheme.

At Yew Hill Water Supply Reservoir in Hampshire we continued to manage the grassland to benefit butterflies under the CSS in co-operation with Butterfly Conservation. Work on the site over 2004-2005 included arranging cattle grazing, and spreading green hay and orchid spikes from species-rich areas to less diverse areas of vegetation to increase the quality of the grassland.

Weir Wood Reservoir lies on the edge of Ashdown Forest in East Sussex, within the High Weald Area of Outstanding Natural Beauty (AONB). It has one of the largest areas of open water in Sussex. The majority of land there is designated as an SSSI for its rich community of breeding birds together with wintering and passage birds.

Part of the land was designated as a local Nature Reserve until two years ago. A new agreement is being finalised and this will include the entire reservoir and SSSI area.

With the help of East Sussex County Council and Friends of Weir Wood, we continued to manage the site to improve habitats for wildlife. Management during 2004-2005 included coppicing and scrub clearance to rejuvenate overgrown areas. We cleared willow to provide better nesting habitat for waterfowl such as great crested grebe. We constructed a small pond with the help of volunteers to attract invertebrates, such as dragonflies. We also erected an osprey perch overlooking the reservoir, constructed a kingfisher nesting bank from felled logs and renovated islands for tern (a waterfowl).

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

Producing a Conservation Management Plan (CMP) involves several stages with the overall aim of enhancing ecological conditions of the local environment

Coppicing is a traditional form of woodland management now utilised for conservation and timber production

Coppicing involves periodic cutting of trees using traditional felling techniques, stacking of timber and leaving brushwood to rot down. This prolongs the life of the tree and attracts diverse flora and fauna

Rides are wide pathways through woodland that are clear of trees and are attractive to wildlife, such as butterflies and wild flowers

Testwood Lakes

With the help of Hampshire & Isle of Wight Wildlife Trust and numerous volunteers, we continued to manage Testwood Lakes in Hampshire to benefit wildlife. The Friends of Testwood Lakes continued to volunteer and carried out conservation and ground maintenance work. This included fencing, ragwort pulling, planting up marginal vegetation, willow coppicing, path repair and litter picking. With their help we collected wildlife records for birds, butterflies and dragonflies. Over 115 species of birds breed on the site, such as lapwing, oystercatcher and little ringed plover. During 2004-2005 we recorded the presence of butterflies such as purple hairstreak and clouded yellow and dragonflies including the red-eyed damselfly, downy emerald and scarce chaser dragonfly. To manage the site we cut wildflower meadows and summer grazing, installed interpretation boards, provided new footpaths, relocated the dipping pond and planted trees and shrubs.

Habitats

We erected 18 barn owl boxes in various locations last year in consultation with the Hawk and Owl Trust and the Barn Owl centre. We began monitoring these boxes last summer in partnership with the local Hawk and Owl Trust. There were some positive signs this year and we are hopeful that some of the boxes will become occupied.

We captured and moved 74 common lizards, 60 slow worms, a grass snake and a toad from a proposed pipeline route at Faversham in Kent to a safe location on the same site. We created temporary habitat piles from logs and tree cuttings into which captured animals were released. To help the reptiles survive the winter we built a permanent place for reptiles to hibernate (a hibernaculum). We filled the



The dipping pond at Testwood Lakes

hibernaculum with logs and hardcore, and topped with soil. The animals will spend the winter curled up in the gaps between the rubble. On completion of the work, we will reinstate the grass along the pipeline route allowing reptiles to re-colonise the area. In the long term the hibernaculum will help to enhance the overall conservation value of the site. We also strimmed the grass along the pipeline route and maintained it at ground level to make it unfavourable for animals to enter it during the construction period.

Environmental Enhancement

The North Kent Marshes, a Special Protection Area, are internationally important for their wading bird populations. These birds feed and breed on the inter-tidal and grazing marsh areas. The drainage ditches on the marshes are also important for their plant and animal communities. In 2004, in partnership with Mid Kent Water, we completed the scoping study for the North Kent Marshes sustainability study. We collected data on the site and made an initial assessment of the areas and features that may be vulnerable to the effects of abstraction. Abstraction is the term describing our use of water from rivers and underground sources. We identified areas for further research.

This included a geomorphological study of the marshes, detailed ecological study of two creeks including water quality studies, and drilling of investigation boreholes beside Halstow Stream.

To mitigate environmental impacts of constructing our scheme for the Brighton and Hove area, we propose to:

- Create a new pond to provide habitat for great crested newts and other amphibians
- Undertake grasslands restoration
- Make general habitat improvements that will in the longer term have a beneficial effect on reptiles and breeding birds

Works for our proposed Margate and Broadstairs scheme in Kent may temporarily disturb the dispersal of animals such as birds, great crested newts, reptiles, invertebrates and water vole. Works may cause temporary loss of habitat where they occur. To mitigate effects to breeding birds we will work outside the bird breeding season, avoid cliff-top edges and areas for nesting birds. We will protect reptiles and water voles by erecting fences around their habitats in areas where impacts could occur. If found at construction sites, we will translocate protected species to safe areas.

We undertook an extensive programme of ecological surveys as part of the New Romney and Greatstone-on-Sea first time sewerage scheme. Mitigation along this scheme includes:

- Enhancement of unaffected areas
- Translocation of protected species
- Erection of a temporary barrier fencing to protect habitats adjacent to affected areas
- Recreation of habitats

2004-2005 Target	2004-2005 Progress	2005-2006 Target
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Develop technical guidance notes for environmental screenings on contaminated land.	Target superseded as the new Single Entity Contractor is responsible for environmental screenings on contaminated land.	
Undertake survey of Biodiversity Action Plan priority species (butterfly) at Powdermill and Darwell reservoirs.	Target met.	Develop a Sites of Special Scientific Interest (SSSI) land management plan.

KEY: Target met In progress Target not met Not applicable

Links: Wessex Archaeology: www.wessexarch.co.uk

Archaeology and Built Heritage

We commissioned a number of archaeological watching briefs during 2004-2005. An investigation site near Hersden in Kent involved fourteen small test-pits revealing remains of an Iron Age settlement in the area. Another two sites did not reveal any significant archaeological finds.

A site survey at Peacehaven, as part of the wastewater treatment scheme for the Brighton and Hove area, identified two previously unrecorded enclosure features likely to be of prehistoric (Bronze Age to Iron Age) origin.

Thanet in Kent is an important area for archaeology. We surveyed it as part of our preparation for our Margate and Broadstairs scheme. We found many archaeological features, including evidence of an Iron Age settlement and two late Bronze Age hoards.



A piece of Iron Age pottery excavated at the site of the proposed sewage treatment site at Peacehaven

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

New Romney in Kent is designated as an Archaeologically Sensitive Area. We will carry out further excavations and provide a watching brief during works in this area.

Access and Recreation

Bewl Water, set in the heart of the High Weald Area of Outstanding Natural Beauty on the Kent and Sussex boundary, is our largest reservoir and the largest stretch of inland water in the South East. Together with its conservation value, Bewl Water continues to be one of the region's most popular tourist attractions.

Bewl Water is ideal for walking, cycling and horse riding and offers a range of watersports. A number of clubs continued to be active at the lake over 2004. These included windsurfing, rowing, sailing and canoeing, and offered courses for a range of abilities. A number of fly-fishing competitions make use of the stock of trout at Bewl Water, including the European Open and England's Ladies National Fly-Fishing competitions.

A wide range of events took place throughout the summer months, including various workshops, a classic car exhibition and the Bewl Garden Show. The firework and proms concert held in July 2004 attracted over three thousand people.

Funraisers Dragon Boat Racing attracted 57 teams in 2004. Now in its seventh year, this event raised a record sum of money for charity. Other charity events held at Bewl Water included the aerial slide for the Royal National Institute for the Blind and many sponsored walks and bike rides. This year we helped to finance a new Wheelyboat at Bewl Water for non-able-bodied visitors.

At Weir Wood Reservoir recreational activities this year included:

- Coarse fishing
- Canoeing by local schools
- Sailing and windsurfing

A guided walk was organised on the reservoir by the ranger on the World Wetlands Day.

Testwood Lakes in Hampshire comprises three distinct areas open to the public. Little Testwood Lake is an operational reservoir. Testwood Lake is used for recreation and is a natural feature for wildlife. Meadow Lake is a centrepiece for a new conservation area.

We run Testwood Lakes in partnership with Hampshire & Isle of Wight Wildlife Trust. We developed it as a water resource and for its nature conservation, amenity and educational value. Over 2004-2005, we guided a number of walks and organised a range of activities at the site. From May 2004, over 1,300 pupils from local schools visited the site for the day. At the first birthday event for the site, we arranged stands from various wildlife groups and included activities such as guided walks, pond dipping, bug hunts and other children's activities with a wildlife theme.

This year, to encourage public access at Powdermill and Darwell reservoirs, we managed way-marked trails and installed new interpretation boards. At Redgate Mill Wastewater Treatment Works, we opened pathways to the public.