

DAMHEAD CREEK POWER STATION: BIODIVERSITY INFORMATION

Key facts:

- Opened in 2001, acquired 2004
- 805MW capacity, Combined Cycle Gas Turbine station (CCGT)
- Located 30 miles south of London on Hoo Peninsula, Kent
- CCGT is an efficient form of electricity
- generation with fewer emissions per unit produced

Site Description

Damhead Creek Power Station is located in an area of significant wildlife value adjacent to the internationally important Medway Estuary and Marshes.

The 4,600-hectare estuary site is an area of diverse habitats,

with mud and sand flats, saltmarsh, lagoons, grassland, wetlands and pasture, creeks, ditches and dykes.

Principally for its nesting and wintering bird populations, the area has been recoanised with three statutory designations – a Site of Special Scientific Interest (SSSI), a Special Protection Area (SPA) and Ramsar site.

Key species include Little and Common Terns and during the breeding season, 6% of the UK population of Avocets – a figure which rises to almost 25% during the winter months.

Although the power station was built on land reclaimed from the marsh hundreds of years ago, it still retains many of the features that characterise a productive wetland. These characteristics have enabled the development of a conservation area to help mitiaate for the environmental impacts of the station's construction and operation.

Priority Habitats and Species:

Planning conditions for the station's construction required the operators to retain existing habitats, which are rich in wildlife, and create and manage new areas for biodiversity. As a result, the station developed a mitigation strategy in liaison with Kent Trust for Nature Conservation, the Royal Society for the Protection of Birds and Natural England.

The strategy will run for the lifetime of the station and is reviewed every five years by Medway Council, Kent County Council and Natural England.

> The 32 hectare mitigation area includes rivers and streams, standing open water, intertidal mud and sand, reedbeds and coastal saltmarsh all of which are priority habitats in the UK Biodiversity Action Plan (UK BAP).

> > These habitats provide a home for UK BAP listed mammals including Water Vole, Otter, Brown Hare and Harvest Mouse, which was noted on the site for the first time in 2007.

The site also hosts Slow Worms and Grass Snakes in good

number, both UK BAP priority-list reptiles, as well as the Great Crested Newt and notable invertebrates. Priority-listed butterflies include White-letter Hairstreak and Small Heath.

UK BAP bird species that have been recorded as breeding include Lapwing, Cuckoo, Turtle Dove, Skylark, Dunnock, Song Thrush, Starling, Linnet and Reed Bunting. Many species listed as being of conservation concern are also present, including Kestrel, Grey Partridge, Barn Owl, Stock Dove, Green Woodpecker, Sand Martin, Meadow Pipit, Nightingale, Cetti's Warbler and Shelduck.

A variety of reptiles make Damhead their home

Barn

Owls: In a link-up with the local Wildlife Partnership, Damhead Creek has created a successful nestbox scheme for

Barn Owls with four boxes erected at the station.

Boosting the Kent population since the start of the scheme in 2002, 30 young owls have now been fledged.

The 4,600-hectare estuary site is an area of diverse habitats

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Our Biodiversity Action Plan

Damhead Creek Power Station launched a site biodiversity action plan (BAP) in 2005-06, to continue to formalise its approach to biodiversity conservation.

The document seeks to entrench existing good practice and sets out a timescale for work to improve habitats and promote species, contributing further to the biodiversity of Kent.

The site BAP supports the Damhead Creek habitat management plan (HMP) for the mitigation area and focuses on four key aims:

- Provide wildlife corridors to link retained features and conserve habitats of high ecological value
- Create wildlife habitats
- Manage land to enhance its nature conservation value
- Protect existing access.



A reedy pond on the mitigation land

The HMP aims to maintain, protect or enhance habitats such as wetlands, reedbeds, grasslands, native woodland, saltmarsh and scrub. It also targets proactive measures to improve conditions for key species including Water Vole, Great Crested Newt and Barn Owl. The range of work is also benefiting large numbers of common species and plants.

Careful hydrological monitoring is critical to the area's ecosystem. The mitigation land is drained by a network of channels, weirs, ditches and outfalls that must be maintained on a regular basis. Recent improvements have seen adjustments to the heights of the water channels that drain the area, providing more flexibility as staff strive to create ideal conditions for the reedbed's wildlife community.

The creation of wader scrapes and wet grassland in 2002 has provided attractive habitats for breeding and migrating wading birds and work continues outwith the mitigation land boundary to develop ponds, a marsh and transitional grassland.

Habitat management is also supported by a range of ecological studies including mammal and bird surveys. A total of 80 species of bird were recorded at the mitigation area including 29 species which were confirmed as breeding, and a further 24 species that probably or possibly nested at the site. Six of the confirmed breeding species are listed in the UK BAP – Cuckoo, Skylark, Dunnock, Song Thrush, Linnet and Reed Bunting.

Moving fish to a new home:

As the development of Damhead Creek continues, so some of the land use has to change. One such area is a pond within the mitigation land which needs to be filled in. In an effort to minimise stress, Mid Kent Fisheries have been employed by Goodman's to harmlessly stun the fish and eels that currently live within the pond and relocate to ponds which are not included in the development of the site.

The eels are being relocated to a pond in an area that will be used for carbon capture and storage where they will hopefully mature before swimming off to mate at around 7 years of age. The fish, mainly Common Carp and Rudd, are being taken away from site and relocated in other ponds owned by Mid Kent Fisheries.

Damhead Creek 2

ScottishPower (DCL) Limited proposes to construct and operate a circa 1200MWe Combined Cycle Gas Turbine (CCGT) Power Station called Damhead Creek 2 which will be located on land immediately adjacent to the existing site.

The site lies approximately 9 km north-east of the city of Rochester and is situated on the southern edge of the tongue of land between the Thames and Medway estuaries - known as the Hoo Peninsula – in Kent.

Damhead Creek 2 will constitute Phase 2 of the Damhead Creek Power Generation Development. The existing 792MW Damhead Creek CCGT Power Station was commissioned in 2001 and consists of two gas turbines and one associated steam turbine capable of generating 792 MW. ScottishPower purchased the Power Station from Entergy in 2004.

Area for proposed Damhead Creek 2

Area to be used temporarily during construction

Ecological mitigation land (owned and managed by

Area for proposed 400kV substation

ScottishPower)

CCGT offers high thermal efficiency, low emissions and high operational flexibility.

During the planning phase ScottishPower consulted local neighbours and held open days so that the community could gain a first hand understanding of the proposals. Medway Council, Natural England and the Department of Energy and Climate Change were all involved in the planning process and section 36 consent.

Key:



Mid Kent Fisheries harmelessly stun the fish before moving them.