



Biodiversity Action Plan 2011-2013



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Biodiversity Statement

Over recent years it has become obvious that the planet's natural environment is becoming increasingly threatened and fragile and the Earth's resources limited.

Many of the activities at Sizewell A are governed by legislative requirements including the Environmental Permitting Regulations 2010 and the Environmental Protection Act 1990. This document, however, is recognition that in some respects we need to go beyond these statutory requirements.

To achieve this, Sizewell A is committed to implementing this Biodiversity Action Plan which will include additional activities designed to protect and enhance the environment in and around the Sizewell A Site. This action fulfils a commitment made in the Environment Agency Nuclear Industry Sector Plan.

The objectives of the Biodiversity Action Plan are:

- To enhance and maintain habitats to maximise the number of species of flora and fauna found in and around the land managed by Sizewell A where consistent with safety and operational constraints.
- To continue to manage our land responsibly during the transitions associated with decommissioning of a nuclear site, working within the scope of the site decommissioning consent and Environmental Management Plan.
- To raise awareness and understanding amongst workers and the general public of the importance of protecting biodiversity.
- To improve the visual amenity of the site and provide pleasant surroundings for workers and local residents.
- To enhance relations between Sizewell A, the public and local residents

Introduction

What is Biodiversity?

Biodiversity can be defined as the number and variety of different organisms in the ecological systems in which they naturally occur. It includes the whole of the natural world from the smallest bacterium to the largest living organism, the Giant Redwood tree. Sizewell A provides a living space for some of these species

Biodiversity is recognised as being vital in ensuring a stable environment for industrial/commercial organisations to operate in, either because processes require natural resources (e.g. paper, energy) or because a healthy stable environment is an integral part of the operation (e.g. fishing).

The aim of any Biodiversity Action Plan is, where practicable, to enhance and maintain a particular habitat to maximise the number of species that can survive within it.

Biodiversity: the number and variety of organisms in the ecological systems in which they naturally occur.

The Background to Biodiversity

The United Nations Earth Summit Convention on Biological Diversity, held in 1992 in Rio de Janeiro, implemented a framework for nations to conserve biodiversity by using various strategies.

In 1994, our government established the UK Biodiversity Action Plan (UKBAP) which sets targets to conserve and enhance natural habitats to maximise biodiversity in Britain thus contributing to the goals set by the UN. A review of the UKBAP in 2007 led to the identification of 1150 threatened species and 65 habitats that meet the Rio BAP criteria in Britain.

In 2002, the nuclear industry and the Environment Agency developed between them a Nuclear Industry Sector Plan. One of the key environmental indicators was the development of a Biodiversity Action Plan for individual sites.

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1: Little Egret, 2: Bee, 3: Robin, 4: Coal Tit, 5: Avocet, 6: Brown Hare, 7: Norfolk Hawker, 8: Painted Lady, 9: Stonechat





Sizewell A is located on the Suffolk coast, approximately 2km north east of Leiston.

The Sizewell A Site

Sizewell A is a decommissioning Magnox nuclear site and is one of eleven currently managed and operated by Magnox Ltd. The Site has been owned by the Nuclear Decommissioning Authority (NDA) since the first of April 2005.

The Sizewell A Site is located on the Suffolk coast (TM 474 632) approximately 2km north east of Leiston and adjacent to the small village of Sizewell. Sizewell B Power Station, owned by EDF Energy, is situated directly north and shares a boundary with the A site. EDF Energy owns the majority of the surrounding land.

The land owned by the NDA, which is also the Site Licence Boundary, includes all the land inside the perimeter fence and the beach down to the high tide in line with the North and South fences.

The land inside the perimeter fence is mostly developed; consisting of a mixture of brick or concrete buildings, metal structures and portacabins. A road network exists within the Site boundary and car park outside the boundary to the west. The remaining areas consist of maintained shingle and lawn.

Hill Wood, adjacent to the south of the Site, is leased by the site from EDF Energy on a 99 year lease. The car park area south of Hill Wood is owned by Suffolk Coastal District Council. Beyond this lies the village of Sizewell which is made up of several privately owned homes.



Surrounding Area

Topography

The coastal area is relatively low lying, approximately ten meters above sea level, with the exception of marginally more elevated ground to the west and north-west. This gently undulating landform combined with existing trees and hedgerows tends to screen most inland views of both A and B sites in all but the closest viewpoints, with some noticeable exceptions just north of Leiston.

The main landform features surrounding the Site area are as follows:

A gentle undulating coastal topography interspersed by the estuarine valleys of the River Alde, Minsmere River and the Blythe River, along with numerous other smaller valleys and tributaries; Steady rising ground to the west and north-west;

The broad low-lying mouth of Minsmere valley at the Minsmere Nature Reserve just north of Sizewell A and B; and Low lying ground south west of Walberswick at Walberswick National Nature Reserve.

The land on which Sizewell B Power Station stands is similar in nature to Sizewell A's, however, EDF Energy also own a large area comprising freshwater wetland, woodland, farmland and grass pasture surrounding the sites.

Geology/Soils

The site is directly underlain by 45m of locally shelly, micaceous sands with rounded flint gravels and is part of the Westleton Beds. This sits on the London Tertiaries which in turn overlies the Cretaceous Upper Chalk Formation.

The site is located on sandy acidic soil which would have historically formed part of the Suffolk Sandlings, a stretch of Coastal Heathland which is fragmented but which the Suffolk Wildlife Trust is trying, where possible, to re-establish.

The area between the site fence and the sea is, on the higher areas, a sandy soil type changing within 50 meters of the low tide to a shingle strip which is moved back and forth, depending on weather conditions, by the sea.

Surface Waters

The main surface water feature in the area with the potential to be directly affected by the site is the coastal water of the North Sea. There are several surface freshwater features within 2km of the site, which form a network of drainage ditches immediately to the west of the site boundary called the Sizewell Belts. A small pond is present near the former Visitor's Centre.

The main surface water feature in the area is the coastal water of the **North Sea**.

Environmentally Designated Areas

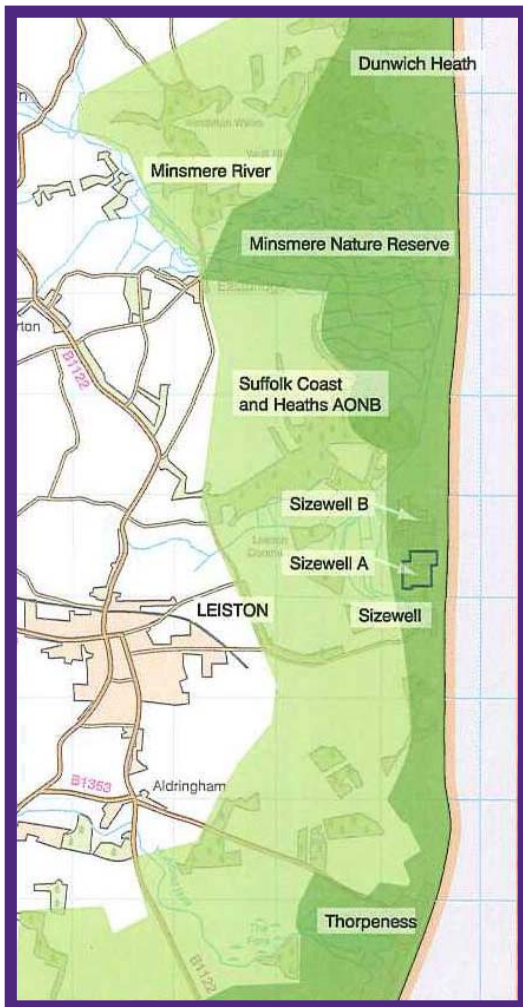
Sizewell lies within the Suffolk Coasts and Heaths Area of Outstanding Natural Beauty and the Suffolk Heritage Coast, which stretches from Lowestoft to Felixstowe. The Suffolk Coasts and Heaths footpath and Sandlings Walk go through the site.

The land adjacent to Sizewell A and owned by EDF Energy includes the Sizewell Belts National Nature Reserves, which is managed by Suffolk Wildlife Trust and a Site of Special Scientific Interest (SSSI).

The important coastal wetlands site of Minsmere neighbours Sizewell B and holds the international Ramsar designation mainly for its mosaic of marine, freshwater and marsh habitats. The area is also an RSPB Nature Reserve that is recognised as having international importance.

The Minsmere-Walberswick Special Protection Area includes the largest reedbed in England. Also bordering EDF Energy land is the dune grassland which forms part of the Minsmere-Walberswick Heaths and Marshes SSSI and Special Area of Conservation.

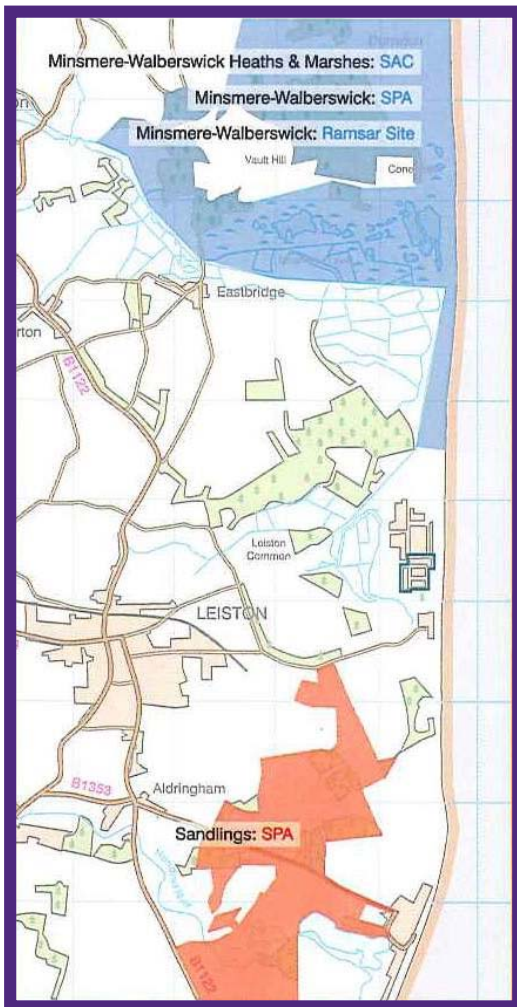
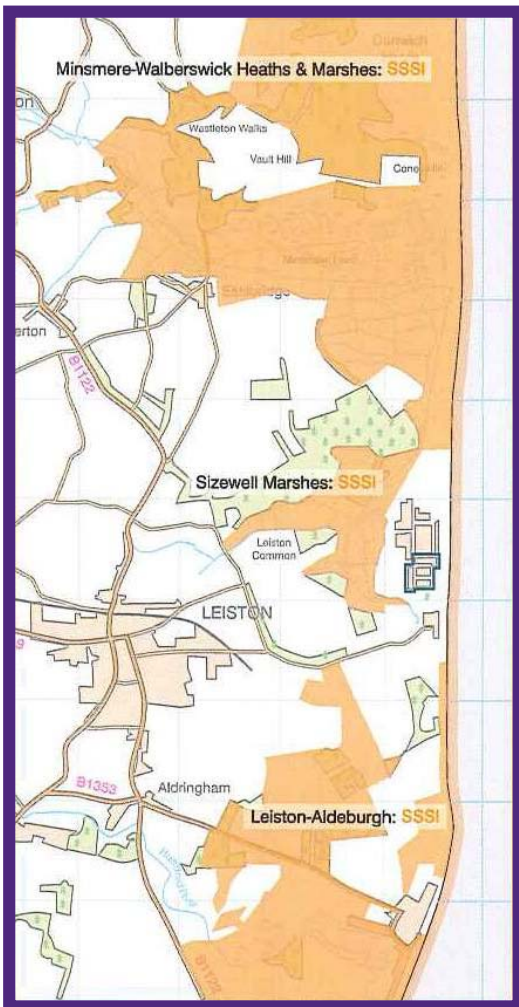
Just 1km to the south of Sizewell lies the Leiston-Aldeburgh SSSI. This includes a rich variety of habitats including acid grassland, heath and woodland. This area also contains important species including the Nightjar and Woodlark.





Glossary of Terms

SSSI: Site of Special Scientific Interest
 AONB: Area of Outstanding Natural Beauty
 SAC: Special Area of Conservation
 SPA: Special Protection Area



Protected Species

Birds

The Black Redstart, a Schedule 1 protected species, breeds on site in small numbers (1-2 pairs) most years. They nest in existing site buildings and structures.

It is an offence under the Wildlife and Countryside Act, 1981 to harm in any way a Scheduled species so it is vital that the Black Redstart breeding sites are recorded, monitored and kept, where reasonably practicable, safe and undisturbed.

The Skylark and the Linnet breed and forage on grasslands on the foreshore.

The site has approximately 400 breeding pairs of Kittiwake's nesting on the cooling water inlet and outfall structures. This is the most southerly colony of this small migratory gull in the North Sea and is the largest in East Anglian waters.

Several rare plants and animals are found at or near Sizewell, including the Black Redstart; a schedule 1 protected species.

Plants

Vegetated shingle, such as that found on the foreshore at Sizewell, is a national and international uncommon habitat, consequently the plants that grow there are also rare. Species include Sea Kale, Sea Pea, Yellow Horned Poppy, Sea Campion, Rock Samphire and Aterplex. The shingle area is not designated as a protected area but is important due to the variety of rare shingle ridge plants.

Reptiles

A number of reptile and amphibian species inhabit the areas surrounding the site and occasionally ingress beyond the site boundary. The Common Lizard, Grass Snake, Adder and Slow-Worm are all protected by the Wildlife and Countryside Act, 1981.

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1: Grass Snake, 2: Yellow Horned Poppy,
3: Skylark, 4: Sea Pea, 5: Black Adder,
6: Linnet, 7: Slow Worm,
8: Sea Kale, 9: Vegetated Shingle



Insects

Two unusual and rare species of insect have been identified on the Sizewell site.

The first of these is the Antlion, an insect so named because it's larvae feed on ants caught in pits dug in sandy soil. This species is extremely rare in Britain and may only be found in the sandy soils of Suffolk.



The Beewolf is a species of wasp that paralyses western honey bees as a source of food for its larvae. Until recently the only locations for these insect in Britain were Suffolk and the Isle of Wight, however, probably due to climate change, their range is increasing.

Antlions and Bee Wolves

are present on site.

2008/2010 Performance

- All workers on site were trained to identify the Black Redstart and are encouraged to report sightings to the environment team. This system has allowed the nest sites to remain undisturbed while in use. 2010 was the most successful breeding year to date with four successful breeding pairs, one of which was located in a nest box erected by the site.
- An article on wildlife, in particular the Black Redstart, found at Sizewell A appeared in the East Anglian Daily Times.
- Successful gap planting of native species, including Hazel, has taken place in Hill Wood.
- Woodland flowers, such as Red Campion, from legal sustainable sources have been planted in open areas of Hill Wood.
- Monitoring of installed nest boxes in Hill Wood has identified that a number are in use by Blue or Great Tits.
- The beach surveys have continued looking for changes in appearance and volume of material. This work has been performed by Halcrow Group Ltd and a report has been produced.
- Routine monitoring of the beach by the Sizewell Shoreline Management Group is continuing with annual reports produced by an independent geomorphological consultant. This has included monitoring of shoreline plant species.



Black Redstarts nesting on site

Photography reproduced with kind permission of Richard Calver

Commitments for 2011/13

Environmental Management Plan

To continue to meet the requirements of the site's consent to decommission under the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 as amended, the site will continue to:

- Monitor the locations of breeding Black Redstarts, ensuring that active nest sites remain undisturbed and that parts of the site remain available for foraging.
- Continue to perform reptile surveys to determine whether reptile fencing is required. If it is deemed necessary project areas will have appropriate fencing installed, prior to the commencement of work, depending on the location and the work planned.
- Prior to the start of any demolition works site dust monitoring to be re-instated in line with the baseline sampling.

Management of Hill Wood

Hill Wood to the south of the site is a conifer plantation of Scots Pine and Corsican Pine with Sycamore as the only broadleaf tree present in significant numbers. The wood is mainly managed for safety and security reasons, including the removal of leaning and dead trees to ensure the site fence remains unobstructed.

- Continue gap planting, away from the site fence, with shade tolerant native species such as Hazel
- Continue to plant woodland wildflowers, from legal sustainable sources, in open areas.

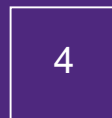


On-Site Activities

- Continue to monitor grassed areas to determine if they can be mown less frequently to allow wildflowers to grow benefiting insects and providing visual enhancement.
- Continue to monitor shingled areas to determine if they could be allowed to vegetate where practicable.
- Installation of two nest boxes, in a suitable location, to encourage Peregrine Falcons to nest on site. This species now breeds in Suffolk and a displaying pair was noted on the site in March 2010.
- Construction and placement of large nest boxes specifically designed to encourage Black Redstarts. These will be located around the site area in appropriate locations allowing for nest sites away from disturbed areas.

Beach Management

- Continuation of beach surveys for coastal erosion in conjunction with work carried out by the Sizewell Shoreline Management Group.
- Presentation of annual Shoreline Management reports and Halcrow reports to Sizewell A and B Management for comment.



1: Hedgehog, 2: Grayling, 3: Common Lizard
4: Black Redstart



On going monitoring will be performed to ensure that Black Redstart nest sites remain undisturbed.



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