

**County:** Cumbria/Lancashire      **Site Name:** Morecambe Bay

**District:** Barrow, South Lakeland, Lancaster

**Status:** Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act, 1981.

**Local Planning Authority:** Barrow Borough Council, South Lakeland District Council, Lake District Special Planning Board, Lancaster City Council

**National Grid Reference:** SD 360700      **Area:** 30,287.5 (ha) 74,840.4 (ac)

**Ordnance Survey Sheet 1:50,000:** 96, 97      **1:10,000:** SD 26 SE, SW, NE, NW;  
SD 27 SE, SD 36 SE, SW, NE,  
NW SD 37 SE, SW, NE,  
NW SD 38 SW SD 46 SW, NE,  
NW SD 47 SE, SW, NE NW SD  
48 SE

**Date Notified (Under 1949 Act):** Cumbria 1975      **Date of Last Revision:** Lancashire 1979  
Lancashire 1976

**Date Notified (Under 1981 Act):** 1990      **Date of Last Revision:** –

**Other Information:**

1. The site forms part of “Morecambe Bay (including Wyre-Lune)” listed in ‘A Nature Conservation Review, edited by D. A. Ratcliffe, 1977, Cambridge University Press.
2. Part of the site lies within the Lake District National Park.
3. Part of the site lies within the Arnside and Silverdale Area of Outstanding Natural Beauty.
4. Part of the site lies within reserves of the Royal Society for the Protection of Birds and the Woodland Trust.
5. The site has been modified by extensions and deletions at this revision.
6. The site is adjacent to the following Sites of Special Scientific Interest: South Walney and Piel Channel Flats, Sea Wood, Roudsea Wood and Mosses, Skelwith Hill, Barker Scar, Humphrey Head, Meathop Woods and Quarry, Far Arnside and Lune Estuary.
7. This site (with South Walney & Piel Channel Flats SSSI and Lune Estuary SSSI) meets the criteria for designation as a wetland of international importance under the Ramsar Convention, and as a Special Protection Area under Article 4 of the European Community Directive 79/409/EEC on the Conservation of Wild Birds.

**Description and Reasons for Notification:**

Morecambe Bay, lying between the coasts of South Cumbria and North Lancashire, forms one of the two largest areas of intertidal estuarine flats in Britain, the other being the Wash. The whole estuarine complex is of international significance for wintering wading birds and of national significance for wintering wildfowl. As such Morecambe Bay provides a vital link in the chain of west coast estuaries used by migrating birds.

The saltmarshes are particularly important for their vegetation which is diverse, supporting a number of rare and uncommon plants, as well as a variety of nationally scarce invertebrate species. The estuarine system of flats and marshes is dynamic with shifting channels and phases of erosion and accretion. On the northern and eastern sides of the Bay sand flats are

bordered by extensive areas of saltmarsh which are covered only by the highest tides. The site contains the largest area of saltmarsh in South Cumbria and the second largest in Lancashire after the Ribble Estuary. The majority of the intertidal flats consist of fine sand with small amounts of silt, whilst relatively muddy areas can be found near Walney Island and towards the Lune Estuary. Mussel *Mytilus edulis* beds are a major feature of the Bay with very large areas off Morecambe, Heysham and Foulney Island. The flats are divided by 3 main river channels namely the Keer, Kent and Leven, in addition to numerous creeks which dissect the marshes. Areas of shingle occur between Rampside and Conishead Bank, and there are a number of stony outcrops known locally as scars or skeers.

The estuary is the second most important in the UK after The Wash as a feeding and roosting ground for large concentrations of wintering wading birds. It regularly supports 110,000 wintering waders with 9 species occurring at nationally important levels (numbers exceeding 1% of the British population). These are oystercatcher (41,000), dunlin (31,000), knot (14,000), curlew (8,000), redshank (5,000), turnstone (1,200), bar-tailed godwit (3,200), grey plover (700) and ringed plover (310); the first 6 are recorded at levels of international significance (numbers exceeding 1% of the European population). Internationally important numbers of ringed plover (1,200) are recorded on passage in the spring, and nationally important numbers of dunlin (3,000) and redshank (5,600) in the autumn. Although no discrete populations of sanderling are identifiable during migration, passage counts indicate the international significance of Morecambe Bay for this species with a recent spring count of 8,500.

The Bay also regularly supports 16,000 wintering wildfowl with internationally important numbers of shelduck (3,200) and pintail (2,500). A further 3 species reach nationally important levels namely eider (3,400), goldeneye (300) and red breasted merganser (130).

Key areas for roosting and feeding wintering wildfowl and waders include Newbiggin, Priory Point, Chapel Island, Sandgate Marsh, East/West Plain Marsh, the River Kent Estuary and Silverdale, Carnforth, Hest Bank, and Bolton-le-Sands Marshes.

The coastal marshes provide a nesting habitat for breeding oystercatcher, ringed plover, lapwing, dunlin, curlew, redshank, shelduck, snipe, black-headed gull, wheatear, reed bunting, common tern, sedge warbler and linnet.

The most extensive areas of saltmarsh are to be found at Hest Bank, Carnforth, Silverdale and Meathop Marshes, the Keer and Kent estuaries, and three larger marshes at Flookburgh: East Plain, West Plain and Sandgate. The saltmarsh vegetation reflects the age, substrate and management of the marshes and shows a well-represented sequence of plant communities moving from the shore inland.

The seaward edge of the marsh is typified by pioneer species notably common saltmarsh grass *Puccinellia maritima* and occasionally glasswort *Salicornia europaea*. Cordgrass *Spartina anglica* has recently spread on to muddier substrates south of the River Keer and in the north around Holme Island, Plumpton and Kents Bank. Above the pioneer zone low level saltings dominated by common saltmarsh grass give way to saltings at a higher level dominated by red fescue *Festuca rubra*. Other species characteristic of this level include thrift *Armeria maritima* and sea plantain *Plantago maritima*. Wet depressions in the upper marsh support communities with the uncommon saltmarsh flat-sedge *Blysmus rufus* or slender spike-rush *Eleocharis uniglumis* being locally dominant. In higher brackish areas the saltmarsh rush *Juncus gerardi* and sea rush *Juncus maritimus* can be found. At the landward edge of the marshes the proportion of salt-tolerant species decreases leaving a sward dominated by bent

*Agrostis* spp, and fescue *Festuca* spp. grasses with species such as autumn hawkbit *Leontodon autumnalis*, sedges and rushes.

Almost all the saltmarshes are heavily grazed, mainly by sheep, a major factor in producing the characteristic low swards dominated by such species as common saltmarsh grass, red fescue and creeping bent *Agrostis stolonifera*. Where grazing is less intense and turf cutting is not practised a number of salt-tolerant plants such as common sea lavender *Limonium vulgare*, lax-flowered sea lavender *Limonium humile* and sea purslane *Halimione portulacoides* occur.

Brackish water areas to the inland edge of the marshes and along rivers support communities dominated by common reed *Phragmites australis*, sea club rush *Scirpus maritimus*, reedmace *Typha latifolia*, and glaucous bulrush *Schoenoplectus tabernaemontani*. Beaked tasselweed *Ruppia maritima* is also found.

In other localities there are transitions to species-rich freshwater habitats with meadowsweet *Filipendula ulmaria* and yellow iris *Iris pseudacorus*. The West Plain–Canon Winder area includes transitions to shingle habitat, which is vegetated in some localities, as at Newbiggin where species such as Ray's knot grass *Polygonum oxyspermum* ssp. *raii*, sea rocket *Cakile maritima*, seakale *Crambe maritima*, yellow horned poppy *Glaucium flavum*, sea holly *Eryngium maritimum* and sea sandwort *Honkenya peploides* are present.

The shores of the Bay support a diverse terrestrial fauna. Associated with the saltmarsh are nationally scarce species of leaf beetle *Phaedon concinnus*, weevil *Trichosirocalus dawsoni* and moth *Pediasia aridella*, whilst the areas of bare sandy mud and accumulations of strand line material at the top of the shore are home to a number of species of beetle including the nationally scarce ground beetles *Agonum nigrum* and *Bembidion bipunctatum* and the rove beetle *Quedius pallipes*. Other nationally scarce species include the water beetle typical of brackish pools *Ochthebius marinus* and the hoverfly *Platycheirus immarginatus*. A number of scarce butterflies are regularly recorded on the saltmarshes around Carnforth but these breed on adjacent calcareous grasslands in the Yealand/Silverdale area.

A number of Sites of Special Scientific Interest, complementary to the interest of the Bay, are included within the site described in 'A Nature Conservation Review'. In particular the head of the Bay has a number of low Carboniferous Limestone cliffs and lowland calcareous grassland as well as rich paramaritime flora which can be found at Barker Scar, Humphrey Head, Meathop Woods and Quarry and Far Arnside SSSIs. The first two listed and Skelwith Hill SSSI are also important for their geological features. Additional interest is provided by an exposure of Permian brockram of local geological importance at Rougholme Point and by a small area of oak-birch woodland at Crag Wood. Limestone cliffs supporting the nationally scarce Maiden hair-fern *Adiantum capillus – veneris* and the rare whitebeam *Sorbus lancastriensis* are also found within the site.