

**County:** Cornwall

**Site Name:** Hayle Estuary & Carrack Gladden

**District:** Penwith

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

**Local Planning Authority:** Penwith District Council  
Cornwall County Council

**National Grid Reference:** SW 550370      **Area:** 190.3 (ha) 470.23 (ac)

**Ordnance Survey Sheet 1:50,000:** 203      **1:10,000:** SW 53 NW, NE

**Date Notified (Under 1949 Act):** 1951      **Date of Last Revision:** 1973

**Date Notified (Under 1981 Act):** 1984      **Date of Last Revision:** 1993

**Other Information:**

The site boundary has been amended by extension and deletion.

**Description and Reasons for Notification:**

The Hayle Estuary is located immediately to the north and west of Hayle on the north Cornwall coast at the head of St Ives Bay. The site consists of an extensive area of intertidal mudflats and sandflats that have accumulated over Lower Devonian slates at the mouth of the Hayle and Angarrack rivers. There is a small area of saltmarsh in the south-west corner of Lelant Water, whilst a larger area of saltmarsh and reed-bed is located at the north-eastern end of Copperhouse Pool. A central triangular spit extending into the main estuary, supports a small, denuded area of sand dune and dune grassland. Carnsew Pool is a bunded tidal reservoir with intertidal mudflats grading into deeper, open water which is retained at low tide. Copperhouse Pool, to the east, is a shallow tidal reservoir with intertidal mudflats.

Porth Kidney Sands to the west of the estuary entrance are backed by dunes and dune grassland that have developed on the extensive deposits of calcareous sand at Lelant. Around the headland at Carrack Gladden, in the west of the site, 60 m high cliffs have been cut into the metamorphosed Devonian slates where the overlying acid soils exhibit a range of scrub, maritime heath and grassland habitats.

The Hayle Estuary is the most south-westerly estuary in Britain adjacent to the important bird migration routes that traverse the Lands End peninsula to the west. The site is therefore in a strategic location to provide feeding and roosting habitats for a wide variety of bird species. Furthermore, Hayle, like other south-west estuaries, normally escapes the extremes of winter weather and thus can provide alternative feeding grounds for flocks of wildfowl and wading birds when other estuaries within Britain are frozen up. The estuary is of special importance for its wintering wildfowl and wading birds which include widgeon *Anas penelope*, teal *Anas crecca*, ringed plover *Charadrius hiaticula*, golden plover *Pluvialis apricaria*, grey plover *Pluvialis squatarola*, curlew *Numenius arquata* and dunlin *Calidris alpina*. In recent years more than 90 wintering species with numbers totalling over 18,000 have been recorded at the site. The estuary is also important for several wintering species uncommon in Cornwall including pintail *Anas acuta*, scaup *Aythya marila*, long-tailed duck *Clangula hyemalis*, red-breasted merganser *Mergus serrator*, common sandpiper *Tringa hypoleucos* and little stint

*Calidris minuta*. Species such as mute swan *Cygnus olor*, oystercatcher *Haematopus ostralegus* and shelduck *Tadorna tadorna* are resident throughout the year.

The open water in Carnsew Pool attracts both wildfowl and diving bird species including black-throated diver *Gavia arctica*, red-throated diver *Gavia stellata*, great northern diver *Gavia immer*, Slavonian grebe *Podiceps auritus*, little grebe *Tachybaptus ruficollis* and goldeneye *Bucephala clangula*. The dune and dune grassland on the central triangular spit provide important roosting areas for many of the birds that visit the estuary. The saltmarshes and reed-bed of Copper-house Pool and Lelant provide important roosting and feeding habitats, and also exhibit an interesting zonation and structure of vegetation. The margins of the estuary support two Red Data Book plant species, western ramping fumitory *Fumaria occidentalis*, and balm-leaved figwort *Scrophularia scorodonia*, and several local plants including round-fruited rush *Juncus compressus* and autumn lady's tresses *Spiranthes spiralis*.

The extreme south-westerly location of the estuary has resulted in the site attracting a variety of migrant and rarer bird species with North American vagrant species being of special note. Few estuaries in Britain contain such a diversity of bird species within such a small area; a total of 242 species have been recorded at Hayle. Access is relatively easy and the estuary is extensively studied by ornithologists from throughout Britain.

The dunes, dune grassland and dune scrub at Lelant exhibit a rich and diverse flora that has developed on the calcareous blown sand. Much of the sand dune system is stabilised by marram grass *Ammophila arenaria*, although traveller's joy *Clematis vitalba* and wild privet *Ligustrum vulgare* are also abundant. Plants of particular note include Portland spurge *Euphorbia portlandica*, bulbous meadowgrass *Poa bulbosa*, and mountain St John's-wort *Hypericum montanum* which are nationally scarce, and Hebridean orchid *Dactylorhiza fuchsii* ssp. *hebridensis* which is of local interest.

Carrack Gladden comprises areas of maritime heath and grassland which support the nationally scarce soft-leaved sedge *Carex montana*. The upper cliffs between Carrack Gladden and Hawks Point to the east are covered with dense wind-pruned scrub in which hazel *Corylus avellana* is dominant. On the steeper wet cliffs below are to be found ivy broomrape *Orobanche hederæ* and maidenhair fern *Adiantum capillus-veneris*, both nationally scarce species.