

Environmental Features of Chichester's Coastal Plain – one of the UK's richest environmental stretches of coastal habitats.

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Chichester's coastal plain contains an array of important and diverse internationally designated environmental habitats and geological features, serving as an important natural oasis on the coast of south-east England. Much of the habitat is among that most threatened by climate change and sea level rise. The extremely low-lying nature of the area, especially the Manhood peninsula and close to Chichester Harbour, and the high concentration of important internationally designated environmental sites make sustainable, long-term, integrated planning vital.

Criss-crossed by ditches and water-ways, and home to increasingly threatened species such as water voles, the area will need to be carefully managed in future years to provide flood protection and wildlife corridors. The Manhood peninsula is home to the only native wild population of water voles in West Sussex. Water voles and its habitat are protected by law, having seen a 95% drop in population nationally since the 1950s. Fortunately, Chichester's coastal plain is blessed to have a pro-active and climate change aware community with volunteer groups such as the Manhood Wildlife and Heritage Group, partnerships such as the Manhood Peninsula Partnership, and organisations such as Chichester Harbour Trust and Conservancy, Chichester Canal Society and the RSPB who have worked together for decades to protect habitat in the area and to make it more resilient to climate change.

As discussed in a separate document on climate change and planning, Chichester's low lying hinterland (certainly anything 5 metres above sea level or below) could be used primarily as a natural ecosystem buffer and floodplain, to enhance the district's future economic and social resilience and sustainability. Indeed, a small section of it, Medmerry, was specifically created as a compensation habitat area for wetlands and saltwater marshes being lost near Southampton.

Environmental Designations of Chichester's Coastal Plain

- **Chichester Harbour** is an internationally significant area containing sites with several important environmental

designations based on its geology, habitat and amenities. These include an Amenity Area, Area of Outstanding Natural Beauty, Special Area of Conservation under the EU Habitats Directive, a Special Protection Area which is an EU designation for a major wildlife site, a Ramsar wetland site designated to be of international importance under the Ramsar Convention on Wetlands, an intergovernmental environmental treaty established by UNESCO, and a Site of Special Scientific Interest and a Local Nature Reserve. The harbour is an area of deep salt-water channels bounded by mud banks, which are covered twice daily by tides, with sand dunes and shingle near the entrance. Birds in Chichester Harbour include curlews, godwits, redshank, dunlin, plover and turnstones, Brent geese, widgeon, herons, egret, coots and swans, grebes and cormorants.

- **Pagham Harbour** is an internationally significant area with several important environmental designations based on its geology and habitat. It is a Special Protection Area, a Ramsar wetland site, a Marine Conservation Zone, a Site of Special Scientific Interest and a Local Nature Reserve. Pagham is an estuarine basin that comprises an extensive central area of saltmarsh and intertidal mud-flats, surrounded by lagoons, shingle, open water, reed swamp and wet permanent grassland. The mud-flats are rich in invertebrates and algae, and provide important feeding areas for birds. The lower saltmarsh is dominated by Common Cord-grass *Spartina anglica*, with patches of Glasswort *Salicornia* spp. The area supports breeding Little Tern *Sterna albifrons* in summer, as well as wintering concentrations of Ruff *Philomachus pugnax* and Pintail *Anas acuta*.
- **Medmerry Harbour** was the largest managed coastal realignment scheme in Europe when it opened in 2013, creating intertidal habitat to compensate for habitat loss elsewhere in the Solent. The innovative scheme compensated for the loss of freshwater SSSI elsewhere and the impact on important populations of protected species, and created an accessible landscape-scale nature reserve. Medmerry is a naturally functioning and developing area of intertidal, transitional, freshwater and terrestrial habitats, which enhances the conservation status of UK priority habitats and

species and the achievement of Biodiversity 2020. The habitats are designed to be resilient to climate change and sustainable long-term. The site is now home to corn bunting, grey partridge, lapwing, avocet, skylark, wheatear, yellowhammers, oystercatchers, plovers, wigeon, snipe, redshank, turtle doves and water voles. Both Medmerry and Pagham are managed by the RSPB.

- **Chichester Canal** is a Site of Nature Conservation Importance (SNCI). Since it stopped functioning as a transport canal in 1906 it has been relatively undisturbed and has acquired a rich wildlife associated with its mosaic of open water, marginal vegetation, banks and bordering hedgerows. The canal forms an important aquatic and terrestrial wildlife corridor linking Chichester Harbour and local gravel pits. Sections of the canal, particularly between Donnington and Birdham Road, have well developed reedbeds of Common Reed (*Phragmites australis*), a scarce type of habitat in the county and particularly important for some species of birds. The canal has a well-established Water Vole (*Arvicola terrestris*) population, dependent on diverse layered bank side vegetation and permeable earth banks with areas that are undisturbed. Water Shrew, bats and a good number of dragonfly species have also been recorded. (Source WSCC).
- **Bracklesham Bay** is a 200.6-hectare (496-acre) biological and geological Site of Special Scientific Interest and a site of Geological Conservation Review. These sites are of national and international importance which display sediments, rocks, minerals, fossils, and features of the landscape that make a special contribution to an understanding and appreciation of Earth science and the geological history of Britain, which stretches back more than three billion years.
- **Selsey Bill and the Hounds Marine Conservation Zone(MCZ)** is an inshore site which covers an area of approximately 16 km² and is located by the town of Selsey. The landward boundary is at Mean Low Water and the site adjoins the Bracklesham Bay Site of Special Scientific Interest. MCZs protect typical, rare or declining habitats and species found in our seas

Selsey Bill and the Hounds is well known for its high biodiversity and species richness, supported by a variety of different habitats ranging from rocky habitats to soft sandy sediments. The site provides additional protection for a series of geological interest features that are exposed on, and underlie, the foreshore within Bracklesham Bay. These rock features, known locally as “The Hounds”, consist of outcrops of limestone and clay exposures and are representative of a coherent rock system stretching across the MCZ from the northwest corner to the southeast. These rock features provide a range of habitats that support a wide variety of species, with deeper or vertical rock faces dominated by animals such as anemones, sponges, and sea squirts.

The site also protects one of the best examples of peat and clay exposures on the southeast coast. Within the southeast of the site is the Mixon Hole, a dramatic 20 m drop in the seafloor exposing clay cliffs capped with limestone. This feature supports a rich diversity of habitats and species and has been classed as a marine Site of Nature Conservation Importance by West Sussex County Council.