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## Bae Abertawe – disgrifiad cryno

Mae gwastadedd arfordirol cul yn cysylltu iseldiroedd Morgannwg ac iseldiroedd Gwendraeth. Yn y canol, oddeutu Port Talbot, mae'r môr a'r ucheldiroedd serth yn culhau'r gwastadedd hwn. Y tu hwnt i'r arfordir tywodlyd eang ceir twyni, gyda lagwnau a rhostir arfordirol pwysig. Mae aberoedd prif afonydd yn tarddu yn yr ardal, yn cynnwys aberoedd Afon Lluchwr, Afon Nedd ac Afon Tawe. Mae adeiladau i'w cael ar rannau helaeth o'r ardal, a cheir dociau mawr wrth ymyl aberoedd Afon Nedd ac Afon Tawe. Dinas Abertawe yw canolbwynt y datblygu, sef y ddinas fwyaf ond un yng Nghymru; a hefyd ceir Llanelli, Nedd Port Talbot a'r Pîl. Cymeriad trefol a maestrefol sydd i'r ardal, gydag ystadau diwydiannol ac ystadau tai mawr. Mae diwydiannau trwm ac aneddiadau wedi gwneud defnydd o'r manau strategol bwysig hyn, rhwng y pyllau glo a'r môr, ac mae'r porthladdoedd mawr o amgylch Abertawe a Gwaith Dur Port Talbot yn nodweddion o fewn y dirwedd. Yn y fan hon, strwythurau geometrig rhyfedd a simneiau sy'n powlio mwg yw prif nodweddion y gorwel, fel y'u gwelir o'r rheilffyrdd a'r priffyrdd prysur. Dyma dirwedd

drefol, uchelgeisiol, swllyd a phrysur sydd â chysylltiad da trwy gyfrwng ffyrdd a rheilffyrdd â phrifddinasoedd Caerdydd a Llundain.

Y tu hwnt i'r tywod, sy'n ffurfio hanner cylch ar y bae, ceir twyni. Yn y rhain, ac yn y codiad tir cyfagos, mae archeoleg Cynffig, Merthyr Mawr wedi'i chladdu. Yn nau ben y bae ceir brigiadau calchfaen, ac mae Porthcawl a'r Mwmbwls bellach yn gyrchfannau i bobl sy'n hoff o hamddena. Mae'r maes carafanau enfawr, y ganolfan ddiddanu a Chlwb Golff Porthcawl yn gorwedd yn un pen; ac mae'r hen anheddiad pysgota, sydd bellach yn ferw o dwristiaid, y pier enwog a'r pentir yn gorwedd yn y pen arall. Gwelir bod nifer o bwysigion y byd celfyddydol yn hanu o'r ardal arfordirol hon, ac mae'r traddodiad corau'n fyw iawn yn lleol.

Yn y blynyddoedd diwethaf mae graddfa'r adfywio yn newid y dirwedd unwaith eto. Mae marinas a fflatiau trefol newydd yn trawsnewid hen ddociau segur Abertawe; ac yn Llanelli mae Parc Arfordir y Mileniwm, gwaith tunplat Trostre a'r warchodfa natur ym Mhenclacwydd (sef gwarchodfa ar gyfer adar yn bennaf) yn arwydd o ba mor amrywiol yw'r newidiadau.

## Summary description

A narrow coastal plain links the lowlands of Glamorgan to those of Gwendraeth. In the middle section around Port Talbot its width is constricted by the adjacent sea and steeply uplands. Extensive sandy coast is backed by dunes, with lagoons and important coastal heath. Major river estuaries issue within the area, including those of rivers Loughor, Neath and Tawe. Large parts of the area have been built on, with major docks by the Neath and Tawe estuaries. The focus of development is the city of Swansea, Wales' second largest, but also Llanelli, Neath Port Talbot and Pyle. Character is urban and suburban with large housing and industrial estates. Heavy industries and settlement have made use of these strategically important locations, between coalfield and sea, and major ports around Swansea and the Steel Works at Port Talbot are landmark features. In that section, strange geometric apparatus and steam belching chimneys dominate the skyline as seen from busy arterial roads and railways. It is a busy, noisy, ambitious urban landscape with good road and rail links to capitals Cardiff and London.

The sweeping crescent of sand, is backed by dunes that have buried archaeology at Kenfig, Merthyr Mawr, as have the immediate rising hinterland. At either end of the bay there are limestone outcrops and Porthcawl and Mumbles have become the recreational destinations. Respectively, the very large caravan park, amusement centre and the Royal Porthcawl Golf Club sits at one end and the lively tourist-attracting former fishing settlement, notable pier and headland sits at the other. Many prominent figures in the world of arts hail from this coastal strip, and there is a lively local choral tradition.

In recent years the degree of regeneration is changing the landscape again. New urban blocks of flats and marinas are transforming redundant former docks in Swansea, whilst at Llanelli the Millennium Coastal Park, the Trostre tinsplate works and the, largely avian, wildlife reserve at Pencaclyydd illustrate the range of change.

Key Characteristics
<b>Narrow coastal plain</b> – a long lowland area, of limited width in its middle section, between uplands and the sea, and opening out into wider lowland areas at either end.
<b>Estuaries</b> – including those of the Rivers Loughor, Tawe, Neath and Ogmore.
<b>Extensive soft coastline</b> - sand dunes and sweeping sandy beaches and lagoons. Kenfig dunes /lagoon have important species including fen orchid and medicinal leech. Relict, prehistoric and later period landscapes, successively buried by wind blown sand.
<b>Setting of steeply rising hills</b> – in the central section around Port Talbot, and belonging to South Wales Valleys to the north
<b>Coal measures</b> - beneath much of the area, but Triassic mudstones form the northern bank of the Ogmore Estuary.
<b>Limestone outcrops</b> - near and Mumbles Porthcawl.
<b>Major glacial moraine deposits by estuaries</b> e.g. Glais Moraine 1 mile long x 45m high
<b>Urban areas</b> - dominated by the city of Swansea and the coalescing towns of Llanelli, Neath and Port Talbot. Swansea, with its strong architectural heritage and cultural importance forms a regional focus. Housing and business planned in large estates.
<b>Heavy industry</b> – giant apparatus with large buildings and chimneys with steam issuing focussed at Port Talbot, with dominating visual and audible presence.
<b>Major transport corridor</b> – with main road and rail lines linking settlements along the corridor, with associated movement, busyness and noise.
<b>Ports and docks</b> – at major river estuaries. Historically the focus for industry but today regenerating and redesigning as post-industrial housing, education and leisure marinas.
<b>Historically strategic location</b> - recognised early for good coal for industry and sea transport, and latterly by rail.
<b>Agriculture</b> - in areas away from dunes and lagoons that have not been built on. Predominantly pasture for dairy, sheep or horse paddocks in regular, hedged fields.
<b>In the few remaining rural parts</b> – the pattern is settlements along roads, with scattered stone or white/cream render farmsteads.

## Visual and Sensory profile

Tightly fitted between the steeply rising uplands to the north and the sweeping bay to the south, this often busy, noisy, at times messy, urban, transport artery also extends over the broad neck of Gower to include the neighbouring, estuary-set town of Llanelli. The presence of the City of Swansea, the dominating plain of giant apparatus at Port Talbot Steel Works, and the large town of Llanelli, reinforce the urban and industrial sense of place. Yet despite this, the respective abutting seascapes at Swansea Bay and the Loughor Estuary both provide remarkable escape and contrast, as do neighbouring character areas covering Gower and the uplands to the north of Swansea. These places offer a sense of openness and relative tranquillity, where wind, tides and active natural processes can still be observed.

With the spread of development over time, the physical separation between some settlements has been weakened, with many peri-urban areas arising. These parts of the area are neither town nor countryside and can challenge visual appreciation, with their oil storage tanks, electricity pylons, derelict industrial facilities, security fencing, litter and air of neglect. This can be reinforced by a background setting of built development and road traffic. Equally this can be countered beyond further by the extent of dune, farmland, woodland and scrub areas and the upland and coastal backdrops.



Within the urban areas the scale of landscape is often experienced primarily through the details of neighbourhood, street and park, all of which vary greatly in character and state of management. This ranges considerably with place, from bleak and run-down, to leafy and manicured, and from vibrant to quiet. The constant here is the setting seen in the many vistas of coast, estuary and upland, often much sought-after, notably focussing around Swansea Bay and backed by the steeply rising hills of the South Wales Valleys.

Swansea retains an important architectural interest with the University campus, Italianate Civic Centre and commercial core which exhibits the classical civic form associated with the post-war rebuilding. Many large modern developments rely on attracting visitors, so great emphasis has been placed on their appearance together with the regeneration of their surroundings. The extensive promenade at Swansea forms a recreational focus, with the eye of many attracted towards the Mumbles headland and its pier, from which a wide panorama can be gained, looking back across the entire bay.



Regenerated Swansea Docks, from Meridian Quay Tower in the Maritime Quarter.

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Looking over Swansea to the South Wales Valleys © Crown Copyright (2007) Visit Wales





Swansea city, docks and bay, with the distant Mumbles headland. © Crown Copyright (2009) Visit Wales



Swansea City Centre and the Neath Valley from Meridian Tower © Crown Copyright (2009) Visit Wales



Promenade and Mumbles. © Crown Copyright (2006) Visit Wales





Extensive heavy industry in the Port Talbot area, with contrasting extensive dunes, ponds and heath at Kenfig Burrows. ©LUC



Port Talbot Steel works © CCW Collection



Industrial and transport corridor on the peri-urban eastern edge to Swansea. ©LUC

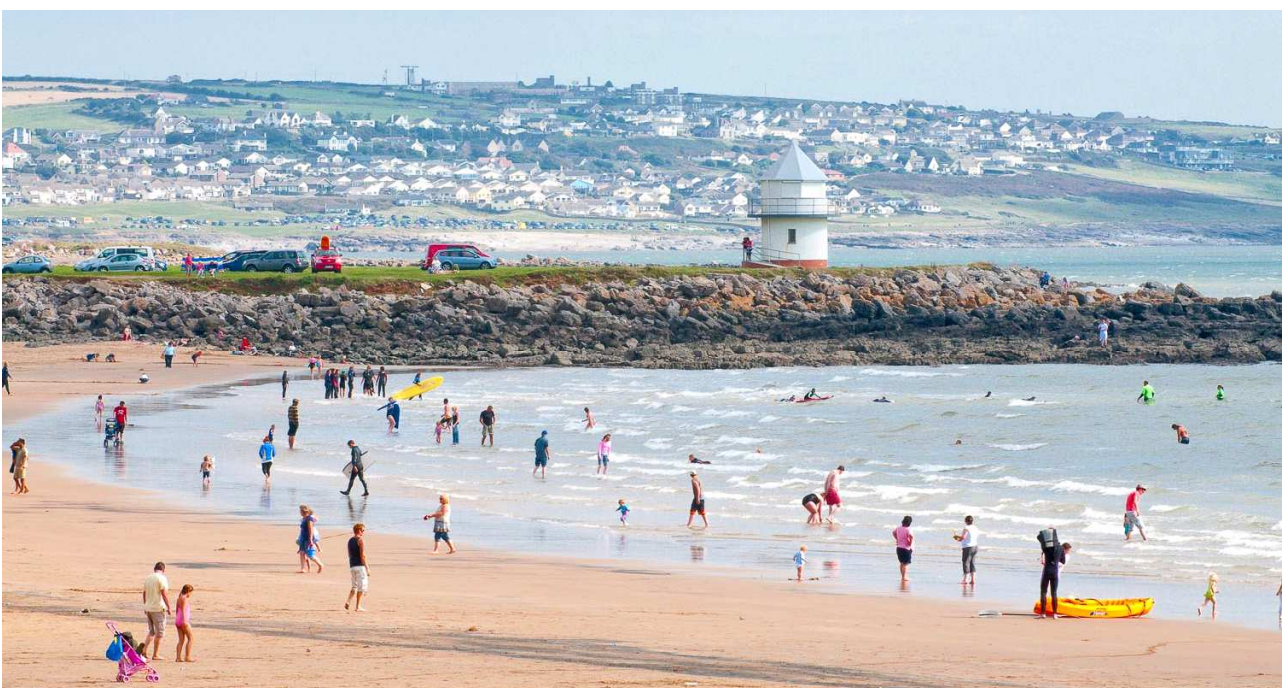




Kenfig Pool © Crown Copyright (2011) Visit Wales



Kenfig Pool and dunes © Crown Copyright (2011) Visit Wales



Porthcawl beach © Crown Copyright (2009) Visit Wales





From Llangennech (Llanelli) overlooking the River Loughor towards Swansea © John Briggs



From Llangennech overlooking the M4 and across the valley to Pontarddulais © John Briggs

## Geological Landscape influences

The landscape is generally coastal in character and includes the Loughor, Tawe, Neath and Ogmore estuaries. The coastal plain is predominantly flat-lying but inland the ground rises to elevations of more than 100m, for example Kenfig Hill, Margam Castle, Neath Valley, Murryston, and Penllergaer Forest. The adjacent upland area of the South Wales Valleys rises very sharply between Swansea and Margam.

The exposed bedrock is predominantly Carboniferous but there is a small area of Triassic and Jurassic rocks near Porthcawl. Lower Carboniferous rocks crop out in two small areas at Mumbles and Porthcawl where they consist dominantly of limestone. Overlying this is Millstone Grit, which crops out in a small band near Mumbles. Coal Measures underlie most of Swansea Bay including the coastal strip from Black Pill, Swansea City Centre and the docks, Port Talbot, Margam and towards Kenfig, but are obscured by alluvium and coastal deposits. The overlying unit in the Carboniferous sequence is the Pennant



Sandstone Formation (Upper Coal Measures). These sandstones are thickest in the Swansea area, where they are up to 1,150m thick, and form the higher ground in the area, for example at Sgetty, Townhill, Penllergaer and Morryston. The Pennant Sandstones also form the high ground in the neighbouring South Wales Valleys that forms the backdrop to the flat-lying coastal areas of Port Talbot and Margam. The succeeding Triassic rocks in are found in a small area near Porthcawl where they rest unconformably on Lower Carboniferous Limestone. They comprise red and yellow sandstones and conglomerates.

The area forms part of the southern limb of the South Wales Coalfield, which is major, structurally complex, WNW-ESE-trending trough-shaped structure that extends westwards into Pembrokeshire. The strata on the southern limb dip steeply in a general northward direction which gives rise to steep scarp slopes in the area, for example north of Port Talbot and Margam. Two of the most distinctive structural features of Swansea Bay are the Tawe Valley and Neath Valley disturbances. These are long-lived, NE-SW-striking zones of folding and faulting. The South Wales Coalfield is also transected by a dense network of steep, NNW-striking 'cross-faults' that are aligned approximately parallel to dip of the strata and generally display vertical displacements.

During the last glaciation, Welsh ice moved from the uplands and Irish Sea ice moved eastwards into the Bristol Channel. The former was dominant but Irish Sea ice did have an influence towards the Vale of Glamorgan east of Porthcawl. Ice advanced south-westwards from Mynydd Du, and the Nedd, Tawe and Afan valleys acted as major outlets, affecting deposits in the Swansea area. At Glais there is one of the largest and most impressive of the valley moraines in Wales. The Glais Moraine extends westwards for a mile across the Swansea Valley reaching a height of c. 45m above the valley floor. Other landforms and deposits related to the Ice Age include the hummocky terrane between Margam and Pyle, which may be a morainic belt, and the outwash gravels deposited by glacial meltwater streams along the coastal plain.

Swansea Bay also includes important areas of coastal sand dune at Crymlyn, Margam, Kenfig and Merthyr Mawr. These areas represent the remains of more extensive sand dune systems which have been partly buried beneath the industrial development at Port Talbot and Margam. This coastline is also known for the remains of ancient tree stumps exposed periodically on the beaches. These represent a forest which developed on the coastal plain and was then submerged by rising sea levels after the last ice-sheet glaciation.

The outstanding geological diversity of the area is represented in numerous SSSI: Bracelet Bay (Lower Carboniferous stratigraphy, Variscan structures), Oystermouth Old Quarry (Carboniferous stratigraphy), Penllergaer Railway Cutting (Westphalian), Earlswood & Ferryboat Inn (Westphalian) and Glais Moraine (Quaternary).

## Landscape Habitats influences

A comparatively large proportion of the area comprises habitats typical of urban and peri-urban areas, including large housing and industrial parts, however this is by no means the full story.

The coastal areas south of Port Talbot and around Porthcawl are defined by undulating sand dunes punctuated by pockets of scrub and trees, common grazed by sheep. These areas are nationally and internationally valued for their coastal habitats, lying within the Kenfig NNR, SSSI and SAC and Merthyr-Mawr SSSI. On the northern bank of the



Ogmore Estuary is one of only three Welsh sand dune systems with species rich calcareous grassland, formed on the limestone plateau. Together with Kenfig Burrows, these areas contain a varied mosaic of dune, standing water, and associated habitats. Internationally important and rare plant and animal species are present including the fen orchid and medicinal leech. This habitat would previously have been present along the majority of this coast but has since been lost to development, remaining other areas including Crymlyn Bog SSSI and Baglan Burrows.

The bay is punctuated at a number of points where watercourses issue into the sea forming estuaries with associated mudflats and salt-marsh. These estuarine areas are of great ecological value with the Burry Inlet and Loughor Estuary being particularly valuable, reflected in its designation as a SAC, SPA, Ramsar Site and SSSI. Other areas of intertidal coast of particular significance include that at Blackpill in Swansea Bay and mudflats at Crymlyn, both of which are SSSIs, and the coast at Kenfig which is designated as both a SAC and SSSI.

Farmland areas include semi-improved, and marshy grassland on generally poorer draining surface-water gley soils. The latter is of considerable ecological value, notably at Nant Y Crimp and Penplas Grasslands, which are both designated as SSSIs. Farmland is generally bordered by hedgerows, many of which are species rich with small blocks and linear swathes of mixed and broadleaved woodlands scattered throughout, adding to the ecological value.

Also of note as distinct habitat areas are the coniferous woodland of Penllergaer Forest and the designed landscape of Penllergare Park to the north of Swansea, and the wooded parkland of Margam Park.

## Historic Landscape influences

This area has a wealth of archaeological evidence and historic remains, reflecting its strategic coastal position and rich underlying coal resources. Merthyr Mawr, Kenfig and Margam Burrows, and Crumlyn Bog and Pantysais Fen are nationally recognised both as landscapes of outstanding historic interest. The extensive evidence indicates how past communities related to shifting climatic and physical conditions of the coastline. Visible remains exposed by the movement of sand include the medieval castle and fortified borough of Kenfig, which is thought to have developed on the site of earlier settlement dating back to prehistoric times.

Merthyr Mawr is the site of a number of important archaeological and historic remains. Prominent features include the ruins of Candleston Castle, a small fortified manor house originally built in the C14th. Earlier features include the defensive Iron Age enclosure of Cae Summerhouse Camp, located in a prominent position on the limestone plateau above the Ogmore River.

Swansea and Neath have varied histories, with the Romans thought to be the first to capitalize on their strategic locations on rivers. Auxiliary forts were established at Loughor and Neath at the narrowest crossing point of the Rivers Loughor and Neath. Practice camps and other Roman remains such as the Roman road Sarn Helen, are also evident throughout the area. But it was the invading Vikings in the C10th who first influenced Swansea's early development, appearing to establish a small community of traders at the mouth of the Tawe.



The Medieval period from the C12th saw further development of Swansea, Neath and Port Talbot, with the Normans establishing castles in each township. Swansea Castle was later garrisoned for the Royalists during the Civil War of 1642-48. The castles at Swansea and Neath remain prominent landmarks today, though evidence for that at Aberavon is now no more than a street name.

Ship building was established as early as the C14th at Swansea and Neath, Swansea's city walls were built, and the rights to hold markets were granted by royal charter.

The presence of coal seams near to the surface, and the location of the area close to the sea for export, led to the rapid expansion of Swansea through the C17th to C19th. It became the busiest port in Wales, exporting coal to as far as France and the Channel Islands, until Cardiff developed infrastructure to link with the rich coal region of the Rhondda in the mid to late C19th, taking over from Swansea as the busiest coal port. Port Talbot alone among the ports of the character area until recently saws substantial tonnages because of the steelworks, while the docks at Neath, Swansea, Llanelli and Burry Port have declined to mere shadows of their former selves.

The success of the coal industry in Swansea led to the establishment of large-scale copper and tinplate smelting which dominated the Lower Swansea Valley as far north as Clydach and led to the expansion of the City, with the development of the Hafod, Plasmarl and the adjacent (now integrated) town of Murryston (Trefor). Despite the decline of the industries and working out of the coal reserves in the early 20th century, there are still characteristic vestiges of industrial buildings and terraced workers' housing that bear testimony to these activities. Features include the industrial waterways of the Tennant and Neath Canals, the forge at Clydach, and copper works at Whiterock and Hafod. The once important Swansea Valley Canal has been covered over extensive lengths but, like the Tennant and Neath Canals, is poised to be a modest addition to the many leisure opportunities in the character area.

## Cultural Landscape influences

The City of Swansea provides a regional focus, together with the coalescing and burgeoning towns of Neath and Port Talbot which lie to the east and south-east respectively, and Llanelli to the west. The Port Talbot coastline is still heavily influenced by industrial developments, including steel and chemical works but significant change is happening throughout the area as it moves, partly, to a post-industrial state. Examples of note at Llanelli include the Millennium Coastal Park and the wildlife reserve at Pencaclyydd.

Large areas of the Swansea's docks and the central city were destroyed by bombing in the Second World War, causing a spate of unremarkable post-War redevelopment, which is now itself being replaced. The earlier part of this redevelopment in the 1980s involved the creation of the Swansea Marina and a boat basin, which has been augmented by further moorings in the waters held back by the Tawe Barrage. The recently opened National Waterfront Museum sits awkwardly alongside the Leisure Centre, while the Guildhall and light-coloured mass of County Hall are statements of civic pride. Swansea University has expanded to include the Institute of Life Sciences (ILS) and Medical School. Developments on the eastern approaches to Swansea and a planned new urban village at Llandarcy further reinforce the ambitious regenerative projects of the past 40 years. The City retains much that is of architectural interest, but is surrounded by new-build housing



estates on green field sites, and others as adjuncts to once self-contained industrial communities.

All this development in the belt from Llanelli to Port Talbot is putting a heavy strain on the road infrastructure. However the overall perception is one of renewed ambition with an element of leisure attraction, following the decline of traditional heavy industries and their former rail and port facilities.

In contrast, the mediaeval architecture of Neath and Margam Abbeys, the 18th century Orangery and 19th century Gothic bulk of Margam Castle, Neath Abbey Ironworks (also 19th century) among others provide ancient monuments and listed buildings of considerable interest and visual attractiveness.

The performing arts figure large in the region. The coastal strip from Port Talbot to Llanelli have produced such well known stars in modern times as Richard Burton, Sir Anthony Hopkins, Michael Sheen, Katherine Jenkins, Bonny Tyler, Sir Harry Secombe, Ivor Emmanuel, Dame Rebecca Evans, Mary Hopkin and Sian Phillips. Artists abound, among whom are Andrew Vicari and Ceri Richards, while distinguished poets such as Vernon Watkins and Dylan Thomas are bound indissolubly to the area. Nor should the choral traditions be ignored, the Murryston Orpheus Choir being the most notable.

The seaside resort of Porthcawl caters for mixed markets with it's sprawling caravan park and amusement centre, it's 'kiss-me-quick' character contrasting with the upmarket Royal Porthcawl Golf Club. The villages of Newton and Nottage (now absorbed into greater Porthcawl) are attractive enclaves of restaurants and pubs, with narrow streets and vernacular stone buildings.

Welsh speaking is relatively high in the west of the area, being concentrated in Llanelli and the rural valleys areas of Swansea, Neath and Afan. This is in contrast to the eastern rural areas towards the Vale of Glamorgan around Porthcawl.