

Pembrokeshire Coast National Park Authority

Landscape Character Assessment



Supplementary Planning Guidance
to the Local Development Plan for the
Pembrokeshire Coast National Park

Working Draft

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1. Executive Summary

This Landscape Character Assessment Study was commissioned by the Pembrokeshire Coast National Park Authority in October 2006.

The Study was managed by a Steering Group comprised of officers of the National Park Authority and the co-sponsors of the Study, the Countryside Council for Wales.

Baseline data from the evaluated aspects surveyed in Pembrokeshire by specialists using the LANDMAP methodology was provided by the Countryside Council for Wales. This data was reviewed in detail and used as a common base, supplemented by further field work, in order to identify and demarcate candidate areas of common landscape character – *Landscape Character Areas*. These were mapped and described and the findings presented to the Steering Group for review and refinement through an iterative process of discussion and amendments, before final confirmation of their names, geographical extent and the position of their boundaries.

In all, 28 Landscape Character Areas of varying size have been identified within the National Park. In many cases, the landward boundary of the Landscape Character Area does not correspond with the National Park boundary, meaning that the same landscape character continues into the administrative area of Pembrokeshire beyond the Park, implying that sensitive areas of high value landscapes may also lie outside the National Park although adjacent to it.

Data Sheets have been produced for each Landscape Character Area. Within these sheets, detailed descriptions of the main attributes are included, under the topics of Visual & Sensory Landscape, Geological Landscape, Landscape Habitats, Historical and Cultural Landscape. Representative photographs taken within the Landscape Character Area are included to illustrate its general appearance. The Study has also identified in some detail the special qualities of each Landscape Character Area by identifying and describing the key landscape characteristics present in each case. In addition, any trends in the state of the management of the landscape which can be readily discerned have been noted, such as the changes in field boundaries resulting from different agricultural practices, or the establishment of

forestry plantations on open land. Finally, management guidance notes for each Landscape Character Area have also been set out, noting the main points to be taken into account in both the land use planning and land management processes.

The special qualities of the landscape have also been described in summary form, drawing upon information gleaned from visitors and residents' surveys undertaken during 2006 and from the desk study and field assessment work carried out for this Study. These are important in determining planning policy objectives in the emerging Local Development Plan and informing the production of the new National Park Management Plan.

This document is supplementary planning guidance to the Local Development Plan.

2. Introduction

2.1 This study was commissioned by the Pembrokeshire Coast National Park Authority (PCNPA) in October 2006, working in partnership with the Countryside Council for Wales (CCW). The study brief was drafted jointly by PCNPA and CCW and the Study Methodology was refined in collaboration with – and was approved by – the Project Steering Group, following detailed discussion.

2.2 The Study Methodology draws upon baseline data gathered by CCW using the LANDMAP methodology developed by CCW and used throughout Wales for the systematic assessment of landscape character to aid policy formulation, development control decisions and the evolution of land management policies.

2.3 The study encompasses all of the area of the Pembrokeshire Coast National Park. Where the Landscape Character Areas identified and defined extend across the National Park boundary into the adjacent parts of the County of Pembrokeshire, this is shown with a dashed line at the National Park boundary.

Local Development Plan for the Pembrokeshire Coast National Park

2.4 The Pembrokeshire Coast National Park Authority has adopted the Local Development Plan. The new planning framework requires a sound evidence base and a key issue for plan preparation will be landscape, especially its character and sensitivity to development, and its capacity to absorb change without detriment to its character. The National Park Authority is also required to put in place a Management Plan.

2.5 This Supplementary Planning Guidance provides more detailed guidance on the way in which the Local Development Plan policies (in particular, Policy 8 Special Qualities and Policy 15 'Conservation of the Pembrokeshire Coast National Park') are applied. Supplementary Planning Guidance does not form part of the Local Development Plan,

but as it has been adopted¹ has significant weight in deciding whether a proposal can receive planning permission. A report of consultations detailing how the Guidance was consulted upon is available to view on the Authorities website²

¹ By resolution of the National Park Authority on the 22nd June 2011.

² <http://www.pembrokeshirecoast.org.uk/default.asp?PID=183> weblink to report of consultations

3. The Study Brief

3.1 The Study Brief required the following specific outputs:

- the provision of an impartial assessment of the landscape character of the Pembrokeshire Coast National Park as a Park-wide and community resource
- the setting out of the Park's special qualities, as required by the Welsh Assembly Government guidance on management Plan preparation, defining what makes the National Park special and unique
- the provision of a clear understanding of the Park's landscape and settlement pattern
- the identification of individual landscape character areas within the landscape and a description of their main landscape characteristics
- the identification and description of the character of settlements, including their key characteristics and their relationship with the landscape setting.

4. The Study Methodology

4.1 Background

The candidate 'Landscape Character Areas' (LCA's) were identified from information derived from the quality-assured LANDMAP Visual & Sensory Aspect data gathered by the various 'Aspect Specialists' and provided by CCW, in accordance with the required methodology set out by CCW in June 2002³. The preliminary identification was based primarily on landform, land cover and settlement pattern.

4.2 Landscape Assessment by LANDMAP

4.2.1 LANDMAP is the Welsh approach to landscape assessment. It is a Geographical Information System (GIS)-based resource where information about the landscape is recorded, organised and evaluated into a nationally consistent spatial data set. LANDMAP is a partnership programme between the Countryside Council for Wales and all of the Unitary and National Park Authorities of Wales. LANDMAP was developed to provide an information

resource that gives equal consideration to all facets of the landscape for use in sustainable landscape decision-making.

4.2.2 LANDMAP information focuses attention on the individual parts of the landscape that are most important and in need of sustaining, but in a context that also values the ordinary as well as the spectacular landscape, in order to uphold Wales' diverse landscape heritage.

4.2.3 The core of LANDMAP information comprises five spatially-related datasets recording information about the physical, ecological, visual and sensory, historic and cultural influences on the landscape. It is the use of all five layers of information that promotes sustainable landscape decision-making, as what may be less important in one particular layer may be of high importance in another. Giving all five layers equal consideration ensures no aspect of the landscape is overlooked. Specialists collect LANDMAP Information in a structured and rigorous way that is defined by the LANDMAP methodology (CCW, 2001 and updated in 2003). More recently, socio-economic information and indicators have been incorporated alongside LANDMAP Information to provide contextual information to aid the understanding of the influences of socio-economic processes in directing the nature and scale of landscape change.

4.2.4 The process for developing LANDMAP Information is the same for all five evaluated Aspects. Initially the study area is classified into different landscape types which are defined as discrete geographical areas; these are known as Aspect Areas. Aspect Areas are mapped and 'Collector Forms' are completed by entering the compiled data for each identified area. The information on the Collector Forms is obtained primarily from desk study work, which may be refined by field assessment; however some questions can only be answered properly through field assessment. A technical report is also completed to explain judgements and any deviations from the method. A Quality Assurance procedure is then carried out on the assessment to ensure consistency and quality control.

4.2.5 *Table 1, below*, summarises the stages of the development of LANDMAP information gathering and its subsequent application to land use planning and the development of this Landscape Character Assessment Study:

Table 1: LANDMAP – Summary of Approach to Landscape Assessment and Landscape Characterisation

C O R E S T A G E S	Stage 1 Orientation
	○ Project planning
	○ Stage 2 Creation of spatial framework (GIS) and database
	○ *Evaluated Aspects (Quality Assured)
	○ Geological Landscape
	○ Landscape Habitats
○ Visual & Sensory	
○ Historic Landscape	
○ Cultural Landscape	
○ Public Perception	
○ Stage 3 (Optional)	
○ Landscape Characterisation (Development of Landscape Character Areas from core LANDMAP Information above)	
○ Secondary Products (e.g. Supplementary Planning Guidance, Design Guidelines, Landscape Strategy)	

4.2.6 The first step in developing the core *LANDMAP Information* for each 'Evaluated Aspect', as shown in the table, was to classify the National Park into geographically identifiable 'Aspect Areas' of common characteristics and qualities (identified as polygons in a single GIS layer). This was done using the prescriptive hierarchical classification system unique to the methodology for each Evaluated Aspect, such as the Geological Landscape or Visual & Sensory.

4.2.7 Then for each Aspect Area identified, specialists developed a survey record that describes and documents the landscape character, qualities and features. Management recommendations and urgency of management have also been recorded for each Aspect Area, in addition to an overall evaluation of value, current condition and predicted trend. Where appropriate, an assessment of an Aspect Area's tolerance to certain changes has been assessed.

4.2.8 LANDMAP information is managed through a Geographical Information System. Each spatial layer can be viewed independently or overlaid by other Evaluated Aspects (or other compatible datasets) in order to interrogate the data to support analysis and decision-making.

³ CCW LANDMAP methodology published in 2002

4.2.9 LANDMAP has the following important attributes:

- it provides users with the opportunity to combine environmental, cultural and heritage information with economic and social indicators to assist with sustainable decision-making
- it provides a framework of information for developing landscape strategies and guidelines that reflect an area's sense of place; and ensures the characteristics that define that sense of place are recognised and are managed in a sustainable manner
- it provides a comprehensive and integrated baseline of information, against which decisions can be assessed and change can be monitored.
- it incorporates socio-economic information as a context for landscape changes
- it assists decision-making at a range of levels, from the local to the national scale
- it facilitates transparency in decision-making.

4.2.10 In isolation, *LANDMAP* is not a sustainable development tool and is not used as such. It is, however, a major source of information and knowledge which is used for the basis of decision support in the arena of sustainable management of the Welsh landscape.

4.3 Landscape Characterisation

4.3.1 By examination of the *LANDMAP* Visual & Sensory Aspect classifications at Level 1, then level 2, e.g. *rolling lowland*, the draft Landscape Character Areas began to emerge. Further detail was then added by examination of Level 3 data, e.g. *mosaic rolling lowland*. In some areas, examination to the greater detail of Level 4 was required, e.g. *rolling farmland mosaic*, in order to define LCA boundaries with the required degree of confidence.

4.3.2 The next stage was to identify and delineate the patterns of the natural aspects from examination of the Landscape Habitats Aspect data and the Geological Landscape Aspect data. Further refinement was achieved by overlaying the Historical Landscape and Cultural Landscape Aspects data onto the above assembled information.

4.3.3 Targeted field survey was then undertaken, in order to verify some of the inter-relationships between Aspects, and

also to achieve boundary verification prior to the confirmation of the candidate Landscape Character Areas. These proposed LCA's were then presented to the Project Steering Group for detailed discussion and amendment, as required, then for approval before proceeding to the next stage of the character assessment.

4.3.4 The final stage of this process was to scrutinise the agreed candidate LCA's so as to create clearly defined and mutually exclusive Landscape Character Areas. Again, targeted field survey allowed for verification of judgements (goodness of fit) made in the desk evaluation process. A record of any judgements or decisions regarding cross-boundary matters or contentious issues has been retained, in the interests of transparency and accountability.

4.3.5 Out of this process, it has been possible to identify the 'special qualities' of the National Park, particularly as expressed through the identification of the *key characteristics* of any given LCA. Appropriate supporting photographs have been included in order to illustrate these points. An essential output of this process has also been to take cognisance of the discernible trends in the landscape noted in outline in the *LANDMAP* Visual & Sensory Aspect data and in field verification, and to examine the landscape and visual implications of these trends, in order to make appropriate management recommendations for each LCA. Many of these relate to landscape elements or features not subject to the development planning process or subject to development control.

4.3.6 The landscape characterisation process is to be used to inform the evaluation of specific settlements identified in the National Park, including their key characteristics, their relationship with the landscape setting, and to assist in the determination of their capacity for and sensitivity to residential and employment development. As an important part of this process, additional survey for settlements and their edges to *LANDMAP* Level 4, using Visual & Sensory Aspect data, will be used to provide important information for the ensuing settlement capacity study, which is the subject of a separate study.

5. Baseline *LANDMAP* data

5.1 The baseline *LANDMAP* data was provided over a period of months. The *LANDMAP* data collected for each

Aspect is subject to a rigorous process of Quality Assurance, put in place by CCW for the collection of data using the revised methodology effective from June 2003.

5.2 The nature of the Cultural Landscape Aspect Areas is such that they tend to be much larger in extent and less detailed in their descriptions than those defined for the other four evaluated Aspects. The role of Cultural Landscape characteristics therefore tends to be less crucial than the other Aspects in the precise definition of LCA boundaries, especially when the required sequence of overlaying mapped data from the evaluated Aspects is taken into consideration (*see section 6.1, below*)

6. Landscape Character Areas

Study Approach to LCA Identification

6.1 The LANDMAP methodology for landscape characterisation (dated 10th June 2002) requires the assessor to overlay the mapped Aspect data in the following sequence: Visual & Sensory Aspect (to identify candidate LCA's), Geological Landscapes, Landscape Habitats, Historic Landscape and Cultural Landscape. Clearly, the timely availability of the Visual & Sensory Aspect and Landscape Habitats data has allowed for the definition of LCA's, which were submitted to the Project Steering Group in draft form at two stages of the project. These have therefore been subject to officer and member comment within PCNPA and specialist comment by CCW's LANDMAP Co-ordinator.

Landscape Character Areas in the National Park

6.2.1 The Landscape Character Assessment Study has identified and mapped 28 distinct Landscape Character Areas within the National Park.

6.2.2 Boundary definition is a key element of the assessment. The justification for boundary definition for each LCA is described in relation to the National Park boundary and the adjacent LCA's, with reference to the relevant evaluated Aspect Area boundaries. The detailed justification for the definition of the boundary of each LCA is set out in *Appendix 8.2, q.v.*, with notes on key relationships between particular Visual & Sensory and 'natural' Aspects data also included. For each LCA, the Visual & Sensory Aspect Area(s) which have been identified within the locality form the basic starting point for the identification and justification of the boundaries and the evolution of the final LCA.

6.2.3 Each of the LCA's is described in general terms below. In addition, for ease of use and interpretation, the landscape information for each LCA defined has been condensed into a two-page data sheet. These data sheets are set out in *section 6.3, below*.

LCA1 – Saundersfoot Settled Coast

6.2.4 This LCA is the easternmost section of the National Park, running northwards from the northern outskirts of Tenby, through Saundersfoot, then north eastwards through Wiseman's Bridge, Pleasant Valley, Summerhill and Amroth to the eastern boundary of the National Park. Although quite densely settled, the rolling landform with small river valleys running to the coast and the amount of woodland cover and intervening agricultural land mean that the built form is not generally intrusive.

LCA2 – Tenby

6.2.5 The Tenby LCA not only includes the town of Tenby but also the associated coastal areas of The Burrows, stretching south of the town to Giltar Point, together with a part of the lower Ritec valley. The character of outer parts of the town belies the attractions of the high quality architecture and distinctive atmosphere of the old town core and its town walls, the traditional harbour and the castle.

LCA3 – Caldey Island

6.2.6 This LCA is defined by the foreshore of the island lying south east of Tenby, off Giltar Point and entirely follows the National Park boundary. The unique monastic history and cultural value of the settled and long-cultivated island, together with its physical separation, warrant a separate LCA.

LCA4 – Manorbier/Freshwater East

6.2.7 This is a large coastal LCA running eastwards from Stackpole Warren as far as the southern outskirts of Penally, including the coastal villages of Manorbier and Freshwater East. There are marked contrasts in the character of the settlements here, ranging from the exceptional historical attributes of the manorial landscape around Manorbier and the village of Lamphey, to the modern tourism-related developments at Freshwater East. The historic strip-field system either side of The Ridgeway between Lamphey and St. Florence are remarkable surviving elements of past agricultural management.

LCA5 – Stackpole

6.2.8 The Stackpole LCA boundary is tightly drawn around the complex estuary and valleys of Boshoston and Stackpole, Stackpole Warren, and Broad Haven and Barafundle Bay. There are strongly contrasting landscapes

here within a small area of land, ranging from intimate sheltered river valleys with artificial lakes and pools to exposed cliff top and dunes and broad bays with sandy beaches.

LCA6 – Castlemartin/Merrion Ranges

6.2.9 The MOD firing ranges form the greater part of this extensive coastal LCA which runs from the southern extremity of the beach at Freshwater Bay south to Linney Head, then eastwards to St. Govan's Head, thence north east to Stackpole Warren. This area also encompasses the small villages of Castlemartin, Warren and Merrion. The long-established military training use has created a unique character and, ironically given the live-firing activities, preserved a great deal of historical and archaeological features in the landscape. The prominent churches along the ridge between St. Petrox and Castlemartin are still key elements in the landscape, in spite of the military range infrastructure which is intrusive in some areas.

LCA7 – Angle Peninsula

6.2.10 The Angle Peninsula LCA marks not only the Angle peninsula itself but includes Angle Bay and the land to the east as far as the National Park boundary adjacent to the Texaco oil refinery and Rhoscrowther, and to the south east as far as the sand dunes of Kilpaison Burrows and the northern end of the beach at Freshwater West. The exceptional historical value of Angle village as fine example of a planned Medieval village within a largely surviving old field system, and its distinctive later architecture, underpins the strong sense of place on this promontory, with its extensive views along the coast and across the mouth of Milford Haven. There is a long association with the defence of the Milford Haven anchorage, as evidenced by the forts at Chapel Bay and Thorn Island.

LCA8 – Freshwater West/Brownslade Burrows

6.2.11 This LCA was defined in response to a specific suggestion from the Steering Group. It encompasses the extensive inland sand dune systems of Kilpaison Burrows, Broomhill Burrows, Gupton Burrows, Brownslade Burrows and Linney Burrows, together with the broad valley wetlands of Castlemartin Corse, all of which form the backdrop to the dramatic sweep of sandy beach in the bay of Freshwater West. It has markedly contrasting features and is strongly characterised by the sight and sound of the sea along the great sandy beach. The sand dune systems backing the

beach are some of the most extensive in the National Park, contrasting strongly with the low-lying marshy valley of Castlemartin Corse in the immediate hinterland.

LCA9 – Marloes Peninsula

6.2.12 This large and broad peninsula is bounded by the open coast to the north, west and south and the shores of the Milford Haven estuary to the south east. It retains a sense of remoteness - a tract of land dominated by agricultural use and with a scattered settlement pattern, but a long history of settlement, especially defensive features – from prehistoric times to World War 2. The cliff coastline is a strongly recurrent presence with views of the islands of Skomer and Skokholm and the St. Ann's Head lighthouse as key focal points, as well as panoramic views to the north across the wide sweep of St. Brides Bay.

LCA10 – Skomer & Skokholm

6.2.13 These islands lying off the western extremity of the Marloes peninsula are a separate LCA, defined by the National Park boundary in the first instance. These islands have long been valued for their natural history, with bird reserves on the islands, and the stretch of sea around the islands has been declared a Marine Nature Reserve, the only such reserve designation currently within Wales.

LCA11 – Herbrandston

6.2.14 This small LCA lies between the narrow incised river valley of Sandy Haven Pill, which runs southwards from Walwyn's Castle to join the Milford Haven estuary, and the National Park boundary to the west of Milford Haven. This area, along the fringe of the former Herbrandston refinery (now being developed as a Liquid Natural Gas terminal) was identified as a separate LCA because of its unique position in relation to the adjacent LNG complex. Industrial petrochemical complexes have been developed here before and since the designation of the National Park. This position, together with its largely open character and the scale of the nearby industrial developments, results in the landscape being characterised to a great extent by industrial features which are either outside the Park or within the Park but with a brownfield character under recent industrial re-development. Effectively, this LCA is acting as a buffer zone, providing a degree of separation from substantially unaffected areas of the National Park to the west, and as such requires special attention in respect of any

development or land management decision which might have effects upon the landscape.

LCA12 – St Brides Bay

6.2.15 This very extensive coastal LCA runs from the eastern boundary of the Solva Valley in the north west around the great arc of St. Brides Bay, embracing Newgale, Broad Haven and on to Little Haven in the south. These villages have important tourism facilities and the sheer scale of the bay allows these to be assimilated into the scene with very little visual intrusion, except in localised areas. The agricultural hinterland is sparsely settled and remains relatively unspoilt, with traditional hedgebanks marking most of the field boundaries.

LCA13 – Brandy Brook

6.2.16 This is a small inland LCA comprised of a series of small river valleys incised into the lowland coastal plateau and which has no physical connection to the coast, lying north east of the village of Roch to the east of Newgale. The south western section of this LCA forms an important part of the setting of Roch Castle, a Grade 1 Listed Building. It is sparsely settled, being predominantly an agricultural area, but has a long history of settlement and is noted for its prehistoric survivals.

LCA14 – Solva Valley

6.2.17 This small LCA is strongly founded upon the physical form of the enclosed Solva valley, incised into the coastal plateau and running to the sea on the north coast of St Brides Bay. Solva, with its traditional harbour and distinctive local architecture, is now very popular with the sailing fraternity, which belies its past importance as a commercial port associated with the local lime industry and related coastal trade.

LCA15 – Dowrog & Tretio Commons

6.1.18 This is a large tract of inland plateau lying north east of the city of St. David's. It is substantially open and includes the large areas of open access land on the Dowrog and Tretio Commons, which are owned by the National Trust. These relatively flat low-lying open moorland areas, are rare within the National Park and form part of the St. David's headland, with its huge historical and cultural significance within Wales and the Christian church, and has strong links to the city. There is a very long history of settlement and a distinctive local vernacular architecture.

LCA16 – Carn Llidi

6.2.19 These highly distinctive hills, with their stark and rocky silhouettes, visible for a considerable distance, form the basis of this largely upland coastal LCA which runs eastwards along the coast from St David's Head. There is an extensive area of open access land in National Trust ownership. This landscape has an enormously important prehistoric component, with many features and areas not strongly overlain by modern land uses. Much of the high ground of the Carn Llidi LCA and the St. David's Head and its hinterland are designated as open access land.⁴

LCA17 – St David's

6.2.20 This LCA is tightly drawn around the urban area of the city of St. David's, with an extension south westwards down the valley of the River Alun, Merry Vale, a long-established link from the city to the sea and an important transport link for commercial traffic during the height of lime production in the area. The wealth of Medieval buildings and features contained within the cathedral close are a major defining characteristic and reflect the international significance of St. David's in the Christian church.

LCA18 – St David's Headland

6.2.21 This is a very large LCA occupying much of the coastal plateau headland to the west of the city of St David's, and stretching along the coast eastwards of St. David's to meet the Solva valley. The whole headland has strong visual, historical and cultural links with the city of St. David's, which this LCA almost surrounds. There are large stretches of this coastline which are owned by the National Trust and the greater part of the coastal strip of this land has unrestricted public access.

LCA19 – Ramsey Island

6.2.22 The Ramsey Island LCA lies a short distance west of the St David's Headland LCA, across Ramsey Sound, and its boundary is defined by its largely rocky and indented foreshore. Although the north eastern part of the island has enclosed fields, the greater part is covered by open heathland, scrub and grassland. The island has little development and is managed as a bird reserve.

⁴ *Countryside and Rights of Way Act, 2000*

LCA20- Trefin

6.2.23 This is a large coastal LCA running southwards from the prominent rocky hill of Garn Fawr south westwards to the eastern end of the Carn Llidi hills, at Carn Penberry. Rocky cliffs are virtually continuous, punctuated by sheltered coves and inlets, such as Abereiddy, Porthgain and Abercastle. There is a long history of extractive industry along this stretch of the coast, influencing the location and the built form of the coastal villages. The National Trust has landholdings within this LCA.

LCA21 – Pen Caer/Strumble Head

6.2.24 This coastal LCA lies to the north west of Godwick and Fishguard, running from Crincoed Point around Pen Caer/Strumble Head and thence southwards to the prominent rocky hill feature of Garn Fawr with its prominent Iron Age fort. It is an extensive area of predominantly pastoral farmland, enclosed by traditional field hedgebanks, with a sparse settlement pattern of occasional villages, scattered farmsteads and hamlets, and a feeling of remoteness. The Strumble Head lighthouse marks the limit of the exposed rocky headland.

LCA22 – Mynydd Carningli

6.2.25 This large upland area is the westward extension of the Preseli range of hills, sharing many of its visual characteristics, but merits classification as a LCA in its own right, with its distinctive rocky summit and dominating position above the coast. The Mynydd Carningli peak forms an impressive landmark, especially when viewed from the direction of Dinas Cross, Newport, the high ground above the coast between Nevern and Moylgrove/Trewyddel and the main A487 road running northwards towards Cardigan. The rocky summit is one of a wealth of prehistoric sites in this area as well as standing stones and other features.

LCA23 – Newport

6.2.26 This small LCA is founded upon the built-up area of the attractive and popular settlement of Newport for the most part, but also straddles the estuary mouth of the Afon Nyfer to include the land on the eastern side of the Newport Sands. This is a settlement with a long history and is another excellent example within the National Park of a planned Medieval village, with a number of surviving typical features.

LCA24 – Dinas Head

6.2.27 This large coastal LCA defines the stretch of coast between Newport in the north east and the outer edges of Fishguard in the south west, with Dinas Head at its centre. Newport Bay and Fishguard Bay lie to the east and west, respectively. The inland agricultural area is rather more densely settled than in comparable areas to the north of Newport, with the village of Dinas Cross at its heart. Dinas Head is a prominent landmark on the coastline, with a large area of land in National Trust ownership.

LCA25 – Cemaes Head

6.2.28 This very large LCA is at the northern extremity of the National Park. It stretches from Cemaes Head, to the north west of Cardigan at its northern end south westwards to a point north east of Newport Sands. This is an area with a long history of settlement, now sparsely populated with scattered farmsteads, hamlets and the occasional small village, with agriculture dominating the scene. Traditional field boundary hedgebanks are a distinctive feature of the landscape.

LCA26 – Cwm Gwaun/Afon Nyfer

6.2.29 This extensive wooded lowland valley system of the two rivers running inland from Fishguard and Newport – the Afon Gwaun and the Afon Nyfer - is the dividing feature between the two similar but distinctive upland areas of Mynydd Preseli and Mynydd Carningli. Its narrow and enclosed, rather intimate valley landscape is in marked contrast to the bare and rocky hills adjacent. There are frequent views out onto the hills, the form and presence of which accentuate the incised nature of the Gwaun river valley in particular. There is a long history of settlement in this traditional, largely Welsh-speaking farming area.

LCA27 – Mynydd Preseli

6.2.30 The Mynydd Preseli range of hills is a highly distinctive large landform feature clearly visible from much of the National Park, and from many areas of Pembrokeshire outside the Park. It is the largest area of upland landscape within the National Park, with much of this very large inland LCA rising from around 100 metres to well above 300 metres Above Ordnance Datum. This is a landscape with a rich history of human settlement, with many surviving prehistoric features – hill forts, enclosures, trackways, cairns, ritual sites and earthworks. Although 20th Century coniferous forestry plantations have covered some areas of the upper slopes,

the dominant features of Mynydd Preseli are the open hill ridges with occasional massive rocky outcrops at the summits which punctuate the skyline.

LCA28 - Daugleddau

6.2.31 This distinctive LCA is unique in the National Park context in that it is physically detached from the main body of the Park. The dominating characteristic is the ubiquitous tidal river estuary of the Eastern and Western Cleddau rivers, together with the tributary reaches of the Carew and Cresswell Rivers. Although not enclosed by high ground, there is a prevailing sense of shelter, a tranquil area with no views of the sea, but with an evidently tidal river system. There is a long history of settlement and industry, including coal mining, and the tidal mill at Carew is unique within Britain. There are several landed estates in the area, giving the LCA a very different character from most of the National Park and Carew Castle is an imposing reminder of this influence.

Landscape Character Area Data Sheets

6.2.32 The LCA Data Sheets are set out so as to allow for an easy assimilation of the main attributes of each of the LCA's defined within the National Park.

6.2.33 The main components of the *first page* of the Data Sheets are as follows:

- **Inset Map** – in the top left hand section, places the location of the LCA in the context of the National Park
- **Detail Map** – in the top right hand section, shows the extent of the LCA identified. *The boundary demarcation of each LCA is shown as a solid black line, except where the LCA boundary is delimited by the National Park boundary - this is shown as a pecked black and yellow line.*
- **Summary of LCA Characteristics** – the text describes in summary form the location, context, and physical characteristics of the LCA, together with a summary of the main characteristics identified in each of the five evaluated LANDMAP Aspect baseline data descriptions.

- **Representative Photographs** – three representative photographs are included to show examples of the character of the LCA.
 - The main components of the *second page* of the Data Sheets are as follows:
- **Tabular Summary of Aspect Areas for the LCA** – this table lists the Aspect Areas recorded within the LCA for each of the five evaluated Aspects. The unique reference number for each Aspect Area is shown together with its evaluation: *outstanding, high, moderate* or *low*. These Aspect values are defined by the June 2003 LANDMAP methodology as follows:
 - *Outstanding*: international or national importance
 - *High*: regional or county importance
 - *Moderate*: local importance
 - *Low*: of little or no importance.
- Where there is a preponderance of Outstanding values recorded for any Aspect, the Aspect column is highlighted for emphasis.
- **Special Qualities (Key Landscape Characteristics)** – these descriptions are intended to inform the reader as to the main landscape attributes of the LCA, defining what makes the area special. These special qualities are described in general terms in section 6.3, below.
- **Discernible Landscape Trends** – this entry describes trends in the condition or management of the landscape which give pointers as to how the landscape is changing and which changes need to be addressed through management. The extent of change in the landscape will become more apparent when LANDMAP is revisited and updated.
- **Management Guidance** – these notes provide guidance as to the specific key landscape characteristics or trends in landscape change which require some form of intervention management.

6.3 Special Qualities of the National Park Landscape

6.3.1 From this Landscape Character Study, together with a survey of visitors and residents undertaken by the national

Park Authority during 2006, it has been possible to identify 'special qualities' of the National Park landscape in its widest sense. These special qualities are the characteristics and features of the National Park which, both individually and in combination, contribute to making the Pembrokeshire Coast National Park unique. These special qualities have been identified by a combination of users' perceptions of the National Park, supplemented by the systematic assessment of landscape character by specialist consultants throughout the National Park, using baseline data derived from the application of landscape assessment methodology specifically evolved to study the landscape of Wales.

6.3.2 The following special qualities have been identified as distinct topics:

- **Coastal Splendour**
- **Diverse Geology**
- **Diversity of Landscape**
- **Distinctive Settlement Character**
- **Rich Archaeology**
- **Cultural Heritage**
- **Richness of Habitats and Biodiversity**
- **Islands**
- **Accessing the Park**
- **Space to Breathe**
- **Remoteness, Tranquillity and Wilderness**
- **Diversity and Combination of Special Qualities**

6.3.3 **Coastal Splendour**: It is perhaps unsurprising that, since the Pembrokeshire Coast National Park is the only predominantly coastal national park in Britain, the splendour of its coastline with its spectacular scenery and rugged, unspoilt beauty, provide a scenic quality which was recognised from the time of the designation of the national park. The northern area of the Park has a rugged coastline with a strong sense of place produced by a repeated pattern of tall sea cliffs – up to 140 metres above sea level at Dinas Head - prominent headlands, small bays with sandy or shingle beaches, caves and rock stacks. There are frequent panoramic views across Fishguard Bay to the south and Newport Bay to the north. The western stretches of the Park are permeated by the constant presence of the sea, in both sight and sound. Across the wide expanse of St. Bride's Bay, there is a constant awareness of the wind and the sea, sharpened by the sound of crashing waves all along the beaches of this open stretch of coast, especially when the

prevailing south-westerlies reach sufficient strength. The southern coast of the Park has the lower cliffs of the Angle Peninsula, merging into the sandy bay backed by prominent sand dunes at Freshwater West. Eastwards from here, sheer limestone cliffs are punctuated by sheltered coves, rock stacks, natural stone arches – such as the spectacular 'Green Bridge of Wales, near Castlemartin - swallow holes and blow holes, all etched out of the cliff faces by the action of the sea.

6.3.4 **Diverse Geology**: Pembrokeshire is renowned amongst geologists for its spectacular geology, which has provided the field evidence for understanding the rocks of the Cambrian, Ordovician, Silurian and Carboniferous Periods in geological time. This long geological history is recognisable in the landscape of Pembrokeshire but is most easily read in its complex rocky coastline. This has resulted in the Pembrokeshire Coast becoming one of the UK's most important venues for geological fieldwork, noted by one specialist as being a superlative natural classroom in which large sections of the story of Planet Earth can be unravelled as new skills are taught. The upland areas include the distinctive volcanic outcrops of Carn Llidi and St. David's Headland and the great mass of the Mynydd Preseli, including Carn Meini, noted for being the source of the bluestones used to build Stonehenge. These dark peaks contrast with the lightness of the limestone in the cliffs and stacks along the southern coastline, especially at Elegug. Inland, the landscape has been shaped by the actions of ice movement, with the Cwm Gwaun valley being a deep gorge eroded by glacial meltwater. Rising sea levels following the melting of the ice at the end of the Devensian Ice Age drowned many river valleys, producing spectacular 'rias', of which the Cleddau estuary is the most spectacular, with smaller scale features at Solva and Stackpole.

6.3.5 **Diversity of Landscape**: In spite of the predominantly narrow tract of coastal land which makes up the majority of the National Park, there is considerable landscape diversity within the area. The evidence of long-term human activity is widespread, with some features providing tangible links to the past management and use of the land. Traditional hedgebanks are a very important and widespread landscape element, defining field boundaries and producing a characteristic pattern and texture to the landscape, with scattered woods as punctuation points in some localities. Much of the rural area of the National Park is dominated by a farmland landscape. Within this,

traditional built forms predominate in the villages and farmsteads, contributing strongly to the sense of place and, in the north of the National Park, contrasting strongly with the open moorland of the Preseli Hills.

6.3.6 *Distinctive Settlement Character:* Within the National Park are a number of settlements which have a strong, distinctive character, encompassing traditional architectural built forms as well as more formal architectural approaches. Planned medieval settlements are still evident and legible at the village of Angle and at Newport, each lying within a discernible medieval field pattern. Tenby has old town walls and is dominated at its core by Georgian architecture. Much of the character of the villages and hamlets is derived from their function: the village of Solva retains a largely traditional appearance, with many of its buildings reflecting its past function as an industrial harbour and an important centre for the post-medieval trade in lime. The National Park contains nearly 1100 Listed Buildings of architectural or historical value. There are 14 Conservation Areas at the historic cores of Angle, Caerfarchell, Caldey Island, Little Haven, Manorbier, Newport and Newport Parrog, Portclew, Porthgain, St. David's, Saundersfoot, Solva, Tenby and Trevine. These Conservation Areas provide a rich and varied tapestry, defining the building traditions of the National Park. Caerfarchell is a particularly fine example of a small farming hamlet on an ancient site, little changed in spite of the great and far-reaching changes in agriculture which have occurred over the past 50 years. Elsewhere within the National Park, the gradual erosion of the special character of the settlements and buildings through inappropriate or unsympathetic development during the 1960's and 1970's, has placed even greater importance upon these Listed Buildings and Conservation Areas.

6.3.7 *Rich Archaeology:* People have lived in Pembrokeshire for millennia, using its resources and shaping the landscape. Evidence of this settlement and exploitation survives in a wealth of historic and archaeological sites of both international and national importance. These sites reflect the ancient settlement pattern, trade routes, the ecclesiastical heritage of early Christianity and the birthplace of St. David, the patron saint of Wales, through to the strategic importance of defence installations in Pembrokeshire, and industrial relics such as the limekilns at Kiln Park and Solva. A spectacular Iron Age fort occupies the summit of Mynydd Carningli, from which radiate outwards

prehistoric field systems, evidence of settlements, ritual sites and standing stones, demonstrating activity from Neolithic to Iron Age times. The stretch of coast between Abereidid and Porthgain, in the northern part of the National Park, is a walk-through of industrial history; as well as the iconic 'Blue Lagoon' at Abereidid and the hoppers at Porthgain, here there are stone quarries, workers' cottages, the manager's house, tramways and jetties, all of which contribute to the story of the archaeological landscape. To the south, the wealth of historical and archaeological sites continues. The medieval buildings of Lamphey Bishop's Palace, the moated house at Hodgeston, and the well-preserved manorial landscape of Manorbier, with its castle, church and dovecote, are notable examples.

6.3.8 *Cultural Heritage:* The richness of the archaeology has led to a rich and diverse cultural heritage within the National Park. Prior to the Norman Conquest, the whole area was Welsh-speaking and ruled by Celtic chieftains. During the 'Age of The Saints', the county was home to a number of important early Christian figures, most notably St. David, who became the patron saint of Wales. Following his death, his shrine attracted pilgrims from far and wide and his shrine became the site of St. David's Cathedral. The Norman Conquest created a division of the county which still remains today. The native Welsh speakers were driven into the wilder areas of the north whilst the south was re-populated with settlers from Flanders and Wessex. South Pembrokeshire became known as 'Little England' while the more rural north of the county became a stronghold of the Welsh language and culture. The culture of Pembrokeshire is still influenced today by historic sites and buildings. Manorbier Castle is the birthplace of the medieval chronicler Gerald of Wales. The cultural influences of the offshore islands and the Milford Haven waterway, as well as the Pembrokeshire Coast Path National Trail, all help to provide a sense of place as well as a cultural dimension to the story of Pembrokeshire.

6.3.9 *Richness of Habitats and Biodiversity:* The climate, geology and land uses have combined to create a wealth of important habitats and related species in the National Park. The abundance of wildlife – and the ability to get close to it – is one of the great attractions of the National Park, and one which changes with the seasons, bringing benefits for physical, economic and spiritual well-being. The Pembrokeshire coastline is special within Wales as a result

of its variety and abundance of wildlife, reflected in the large number of nationally-designated sites affording protection. Exposed areas of cliffs, headlands, coastal slopes and dune grasslands support some of the finest habitats found in the UK. The area's coastal waters also provide valuable over-wintering locations for winter migrant sea bird species. The eastern and western Cleddau and Afon Teifi hold populations of European protected fish species (including Atlantic Salmon, Brook, Sea and River Lamprey, Twaite Shad, Allis Shad and Bullhead). Otter, dragon / damselflies and protected birds such as Kingfisher are present. The flowering of cliff-top grassland plant communities in the spring and early summer leaves a lasting impression for walkers along the National Trail. Inland, there are open moorland and heathland habitats on the high ground of the Mynydd Preseli and Mynydd Carningli and scattered across the broad low-lying commons to the north and west of St. David's. The extensive oak woodlands of the Cwm Gwaun, the Nevern valley and the upper reaches of the Daugleddau estuary are a marked contrast, the mild oceanic climate and their sheltered locations favouring the development of rich communities of lichens, ferns, mosses and typical woodland flowers, and providing habitat for dormouse.

6.3.10 *Islands:* The spectacle of the offshore islands along the Pembrokeshire Coast contributes strongly to the sense of place. Their relative inaccessibility also contributes to the sense of remoteness, even though they may not lie a great distance from the mainland. Most of the islands are highly attractive coastal wilderness areas, virtually undisturbed and rich in wildlife. These islands provide homes for a wide range of sea birds as well as chough and peregrine falcon, and for breeding colonies of grey seals. The offshore islands of Skomer and Skokholm have internationally-important sea bird communities, and are surrounded by one of only two Marine Nature Reserves designated off the coast of Wales. Skomer is also home to the unique Skomer vole – a species of bank vole. The islands also have a long history of human occupation and settlement, some of which can be dated back to around 5,000 years. Bronze Age cairns and Iron Age field systems make Ramsey Island and Skomer exceptional places. Caldey Island is the most cultivated of the islands and has a local population, including a Cistercian abbey, continuing a Christian presence here for over 1,000 years. A sense of peace and tranquillity pervades Caldey Island, in spite of the large number of day trippers during the holiday season.

6.3.11 Accessing the Park: The landscape of the National Park is made even more special in the eyes of many visitors and residents because of its ease of access. The Pembrokeshire Coast Path National Trail stretches for 186 miles (229kms) along some of the most spectacular coastal scenery in Britain. It was Wales' first long-distance route, opened in 1970, and 85% of the route lies within the National Park. Inland, there are over 500 miles (800kms) of public rights of way; cycleways also pass through the Park. Links to these routes are made easier through the local coastal bus system, allowing walkers to take the Coast Path in one direction and return by bus.

6.3.12 Space to Breathe: Although the westerly winds can be very strong, they bring clean, fresh air. This, together with the clean coastal water and the clean environment are a highly-valued special quality of the National Park, appreciated by both residents and visitors alike. The relatively undeveloped areas of the Park and the ease of access to them provide for many a sense of exhilaration and liberty, or moments for quiet reflection or enjoyment of the stunning views. This is possible even though the nearest settlement may be never very far away.

6.3.13 Remoteness, Tranquillity and Wilderness: These feelings can be experienced in widely-contrasting landscapes within the National Park. The relatively open character of the high uplands of the Mynydd Preseli range and Mynydd Carningli, together with a lack of shelter and cover, provides a strong sense of exposure amongst the summits and on the upper slopes of these hills. They provide a sense of space and isolation, allowing for moments of reflection and calm away from the bustle of everyday life. Whilst this feeling of upland exposure is not much replicated elsewhere within the National Park, it can be experienced at Strumble Head and at Cemaes Head. By contrast, there are areas of the National Park where the sense of tranquillity and peace are engendered from the intimacy and closeness of the landscape. The Cwm Gwaun valley, with its pervading sense of shelter provided by the enclosed valley landform, extensive woodland and the dense hedgerow network impart a sense of tranquillity and solitude within a relatively small area, as does the Solva valley. Similar feelings are evoked in the exposed and isolated reaches of the sand dunes and sandy beach of Freshwater West, characterised strongly by the windswept rolling dunes and the ever-present sound of

the sea and the lack of human habitation. In complete contrast to this wild stretch of coastal landscape are the sheltered upper reaches of the Daugleddau estuary. Here there is a great sense of tranquillity, evoked by the sounds and sights of a quiet enclosed river backwater, magnified by the surrounding rising landform, dense woodland and stands of trees. Part of the special appreciation of the landscape of the National Park is the ability to absorb not only the tranquillity and sense of calm during the day, but also the big skies of the evening and the radiance of the stars in a dark sky on a clear night. Much of the National Park has negligible or slight night-time light pollution. The coastline, the islands, the northern edge of the St. David's peninsula and Freshwater West, in particular, all have negligible night-time light pollution. Those areas with substantial night-time light pollution are confined to the main settlements of Tenby, Saundersfoot and St. David's, and moderate levels of light pollution are experienced on the southern slopes of the Preseli Hills and the hinterland of Tenby and Saundersfoot.

6.3.14 Diversity and Combination of Special Qualities: It is not only these individual special qualities which make the National Park special; it is also the combination of special qualities, together with their variety and their distribution within a relatively small geographical area, which helps to create the unique character of the Park. The recurrent sights and sounds of the sea, viewed along with the rolling open coastal landscapes, enclosed wooded valleys, or seen from the high upland ridges and plateaus of the inland hills, create a distinctive combination of colour, texture, contrast and variation within just a few miles. This combination provides a range of landscape and sensory experiences which is rarely found. It is not only the existence of these special qualities, but also the perception of their permanence – and that the protection afforded by the National Park designation will provide reassurance of that permanence.

6.4 Climate Change and Landscape Character

“Climate change is the most severe problem that we are facing today, more serious even than the threat of terrorism”

Professor Sir David King, Government Chief Scientist

6.4.1 The science of climate change seems to be the subject of lengthy and rigorous debate from the international to the local level, but there is general agreement that the world's climate is changing. More frequent severe weather events are being recorded, especially those which occur in the unexpected season – such as the record rainfall and flooding throughout much of England during the late spring and early summer of 2007. The perceived change in climate is acknowledged by the majority - but there is no consensus at present as to how much the changes are due directly to human influences, especially the increases in global ambient temperatures. There is even less common ground on the matter of predicting the likely effects at the *local* level: on the landscape and the agricultural economy and water resources of Great Britain.

More frequent storm events, rising sea levels and the consequential increased risks of coastal and river flooding are widely anticipated, with varying degrees of severity proportional to the increase in mean global temperature levels. For the landscape of the Pembrokeshire Coast National Park, the possibilities of direct effects are very real.

Much of the coastline of the National Park is highly exposed to the prevailing south-westerly winds. Fortunately, much of the length of this coastline is comprised of cliffs formed from some of the oldest and hardest rocks in Britain, with a natural resilience to even the severest wave action. In some places, however, the shoreline is low-lying, fronted by sandy or shingle beaches and backed by sand dunes, highly vulnerable to violent storms when these combine with high tides. Already, storm damage at Newgale has on occasion caused parts of the shingle beach to be washed inland and over the coast road. Maintaining the road in its present position and condition may not be a sustainable management operation in the medium to long term. At Freshwater West, the blown sand frequently accumulates on the coast road and the stable fixed dunes along the back of the beach may suffer damage and become unstable if severe storms and high tides combine more frequently. The concept of 'managed retreat' on low-lying coasts in eastern England is being put into practice and parts of the coast of Wales may have to be considered for such treatment.

Inland, the landscape is still frequently highly exposed to the prevailing winds from the sea. The historical agricultural management response to

providing robust field boundaries in the coastal farmed areas was to construct and maintain in good order the traditional hedgebanks, such a widespread and strongly characteristic feature of much of the National Park's landscape. These features have provided very effective shelter from the wind for livestock in open fields. The recent changes in the economics of agriculture, and the consequent difficulty of maintaining these features in a cost-effective manner, has led to an erosion of the old farmed landscape in some areas of the Park, with the systematic replacement of some hedgerows by post and wire fences. The conservation, retention and appropriate regular management of the traditional hedgebanks are a recurrent theme of the management guidelines set out in the LCA Study. The prospect of increasing turbulence and more frequent storms throughout a greater part of the year would provide a powerful stimulus to restore and manage traditional hedgebanks, either to provide greater livestock shelter in pastoral areas, or to resist wind erosion of dried soils in arable areas, or to contain and channel water run-off from the land surface during flash floods.

6.4.2 On the large upland tracts of the Mynydd Preseli and Mynydd Carningli, the possibility of more frequent occurrences of drought and high summer temperatures would increase the risk of moorland fires. Such fires would be very damaging if they ignited the extensive tracts of coniferous plantations which adorn some of the upper slopes of parts of this striking range of hills. Moorland is adapted to fire; coniferous plantations are not. This climatic threat could therefore provide a strong incentive to clear-fell the existing plantations at the end of their rotation over the short to medium term, and revert to the former open moorland grazing management. This would also be a powerful disincentive to further woodland planting. However, experience of accelerated growth of sitka spruce at Pantmaenog in the last decade or so, may increase pressures for planting.

6.4.3 The pace of climate change, even at the most accelerated rate forecast, would be unlikely to bring about wholesale changes in landscape character in

the National Park in the short term; but in the longer term for some areas of the actual coast, such as at Newgale, along parts of St. Bride's Bay, Freshwater West, Whitesands Bay and Stackpole, may be the most vulnerable. Nevertheless, it is recommended that the Landscape Character of the National Park be reviewed at least every 10 years, so as to ensure that the key characteristics of any Landscape Character Area are being accurately recorded and the trends in the management of the landscape - and its resulting appearance - are properly documented, so that future land use and management policies can be kept fully informed.



Pembrokeshire Coast National Park

7. LANDSCAPE CHARACTER AREAS

DATA SHEETS