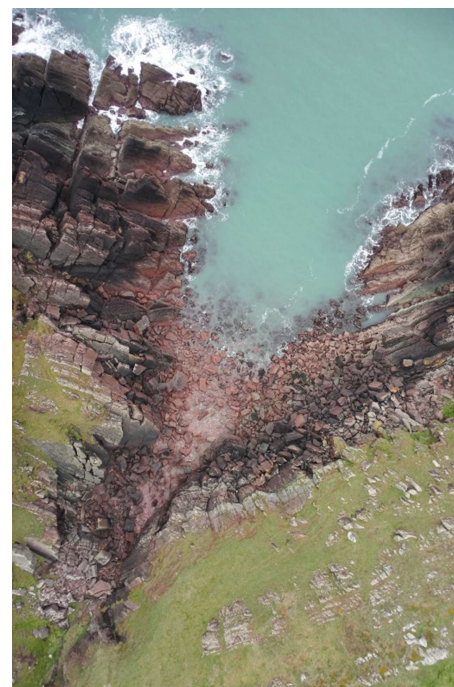




mWave Marine Energy Device and Onshore Infrastructure

ENVIRONMENTAL STATEMENT



CHAPTER 14 SEASCAPE LANDSCAPE ASSESSMENT

June 2019

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Glossary

Term	Definition
Environmental Impact Assessment (EIA)	A statutory process by which certain planned projects must be assessed before a formal decision to proceed can be made. It involves the collection and consideration of environmental information, which fulfils the assessment requirements of the EIA Directive and EIA Regulations, including the publication of an Environmental Impact Assessment (EIA) Report.
LANDMAP	This is the formally adopted methodology for landscape assessment and is advocated by Planning Policy Wales (PPW), is promoted by the Countryside Council for Wales (CCW) and is considered to be a "whole" landscape approach that covers all landscapes, designated and non- designated in Wales.
META Project	The META project, located in Pembrokeshire, consists of eight test sites where a range of marine energy testing activities will be permitted over a 15 year period. The licensing and consenting of the mWave project was originally intended to be undertaken within the consenting and licensing of the META project. mWave will be deployed within META Site 8 geographic area.

Acronyms

Acronym	Description
AONB	Area of Outstanding Natural Beauty
CIA	Cumulative Impact Assessment
EEA	European Economic Area
EIA	Environmental Impact Assessment
GLVIA3	The Guidelines for Landscape and Visual Impact Assessment (GLVIA3)
LCA	Landscape Character Area
LNG	Liquid Natural Gas
LDA	Landscape Design Associates
MCA	Marine Character Area
MOD	Ministry of Defence
MHWS	Mean High Water Springs
NCA	National Character Area
NPS	National Policy Statement
NRW	Natural Resources Wales
PDE	Project Design Envelope
PPW	Planning Policy Wales
PPW10	Planning Policy for Wales

Acronym	Description
PCNP	Pembrokeshire Coast National Park
PCP	Pembrokeshire Coast Path
PCNPSCA	Pembrokeshire Coast National Park Seascape Character Area
PRoW	Public Right of Way
SAC	Special Area of Conservation
SCA	Seascape Character Area
SSSI	Site of Special Scientific Interest
VP	Viewpoint Point
ZTV	Zone of Theoretical Visibility

14. LANDSCAPE SEASCAPE VISUAL ASSESSMENT

14.1 Introduction

- 14.1.1.1 This chapter of the Environmental Statement presents the results of the Environmental Impact Assessment (EIA) for the potential impacts of the mWave project on the landscape and seascape visual assessment. This chapter considers the potential impact of the off-shore and onshore components of the mWave project during its installation, operation and maintenance, and decommissioning phases on the seascape and landscape.

14.2 Purpose of this chapter

- 14.2.1.1 The primary purpose of the Environmental Statement is to support the marine licence application for the mWave project, including the full scale WEC, marine communications cable up to MHWS, Acoustic Doppler Current Profiler (ADCP), Subsea Umbilical Termination Unit (SUTU) and navigational markers (if needed). The Environmental Statement will also support the planning application for the onshore section of the communication cable (from MLW), the termination box, cable anchor point and onshore control station.
- 14.2.1.2 In particular, this Environmental Statement chapter:
- Presents the existing environmental baseline established from desk studies, and consultation;
 - Presents the potential environmental effects of the landscape seascape visual impacts arising from the mWave project, based on the information gathered and the analysis and assessments undertaken;
 - Presents the potential environmental effects on the visual amenity of the study area and from the selected viewpoints including changes to the composition of views and the perception and response by receptor groups to these changes;
 - Identifies any assumptions and limitations encountered in compiling the environmental information; and
 - Where appropriate, highlights any necessary mitigation measures which could prevent, minimise, reduce or offset the possible environmental effects identified in the EIA process.

14.3 Study area

- 14.3.1.1 The study area extends to a radial distance of 5 km from the centre of the onshore control station and is shown in Figure 14-1.

14.4 Policy context

- 14.4.1.1 Policy generally seeks to minimise landscape and visual effects from development and to avoid significant adverse effects. This applies particularly to landscapes with statutory designations, including in this case, Pembrokeshire Coast National Park (PCNP), but also other landscapes outside of designated areas, where there is an aspiration in policy terms to conserve and enhance landscapes of high value or features which are particularly distinctive.

14.4.2 National Policy Statements

- 14.4.2.1 Planning policy on renewable energy infrastructure, specifically in relation to landscape seascape visual assessment, is contained in the Overarching National Policy Statement (NPS) for Energy (EN-1; DECC, 2011a) and the NPS for Renewable Energy Infrastructure (EN-3, DECC, 2011b), which include guidance on what matters are to be considered in the assessment.
- 14.4.2.2 The UK Marine Policy Statement (MPS) is the framework for preparing Marine Plans and taking decisions affecting the marine environment. It provides the high level policy context, within which national and sub-national Marine Plans will be developed, implemented, monitored, amended and will ensure appropriate consistency in marine planning across the UK marine area. The MPS also sets the direction for marine licensing and other relevant authorisation systems.
- 14.4.2.3 The Welsh Marine Plan is currently at draft stage. Policy ELC_01: Low Carbon Energy (supporting) supports proposals for all types of marine energy generation and Policy ELC_02: Low Carbon Energy (safeguarding) notes that adverse impacts should be avoided or minimised when they cannot be avoided and mitigate where they cannot be minimised. The Policy Map identifies areas potentially suitable areas for low carbon energy generation.
- 14.4.2.4 The mWave project, in particular the onshore element, has been an evolving process with respect to landscape seascape visual effects, whilst also taking into consideration the effects on other environmental subject areas. It has involved an interactive process within the design team considering environmental factors including landscape/seascape character and visual impact. This approach utilised the information provided within the LANDMAP datasets as well as site visit. The design and location of the mWave project onshore facilities have been refined in response to this process where site selection has been a key factor in lessening the likely landscape and visual effects. The guidance provided within NPS EN-1 on matters to be included in relation to landscape seascape and visual assessment, which are relevant to the mWave project are summarised in Table 14.1.

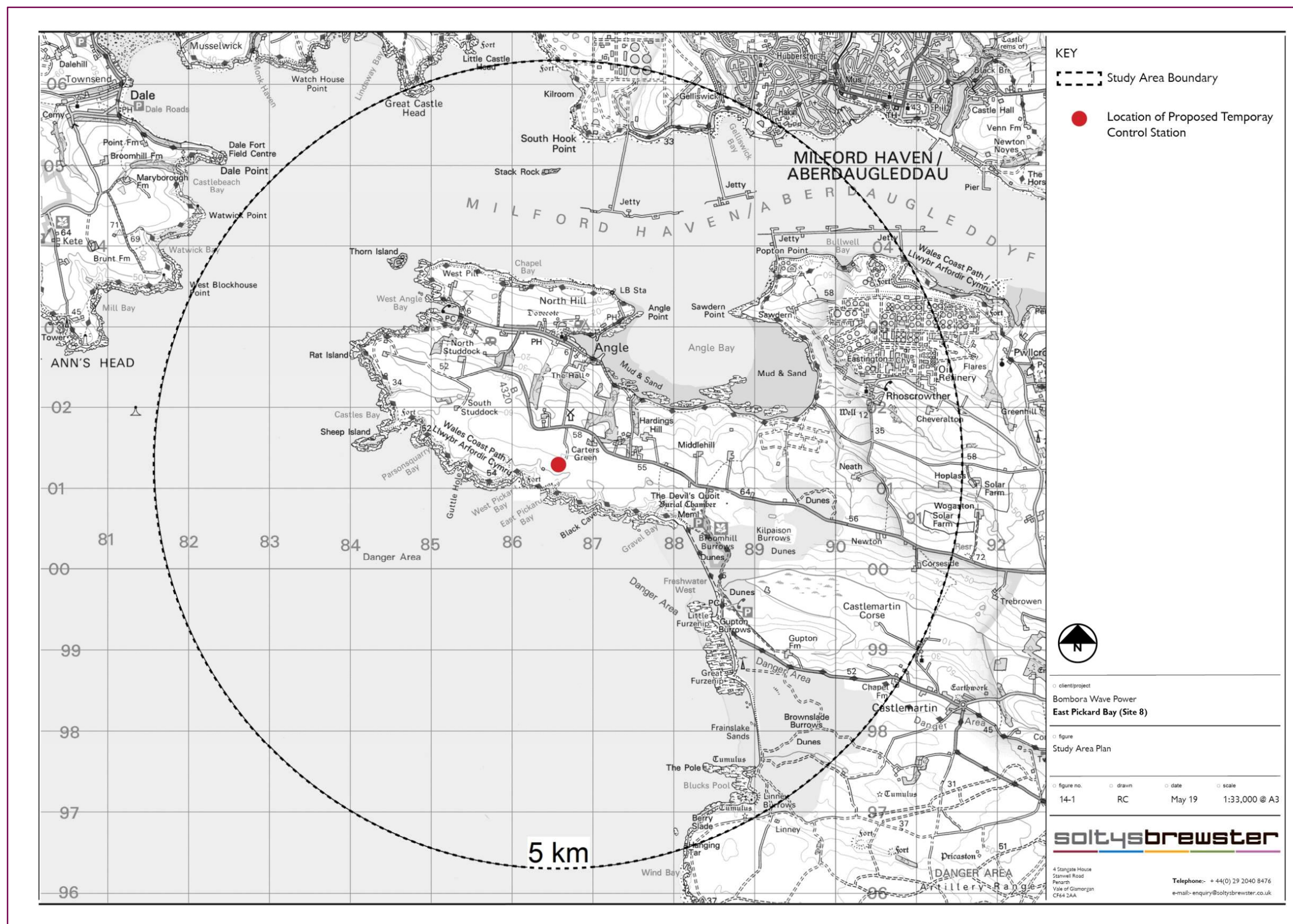


Figure 14-1: Study Area.

Table 14-1: Summary of NPS EN-1 policy relevant to landscape seascape visual assessment.

Summary of NPS EN-1 policies relevant to landscape seascape and visual resources	How and where considered in the Environmental Statement
Landscape Seascape Visual Assessment	
The landscape and visual assessment should include reference to any landscape character assessment and associated studies as a means of assessing landscape impacts relevant to the proposed project (paragraph 5.9.5 of NPS EN-1).	The seascape and visual assessment baseline is presented in Section 14.7.
The Applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England and local development plans in Wales (paragraph 5.9.5 of NPS EN-1).	Relevant policy and guidance documents used to inform the assessment are outlined in this Section 14.4.
The Applicant's assessment should include the effects during construction of the project and the effects of the completed development and its operation on landscape components and landscape character (paragraph 5.9.6 of NPS EN-1).	Assessment of effects on the landscape and seascape elements are assessed in Section 14.11 and 14.12.
The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity (paragraph 5.9.7 of NPS EN-1).	Effects on visual resources are assessed in Section 14.12.
The conservation of the natural beauty of the landscape and countryside should be given substantial weight by the Secretary of State in deciding on applications for development consent in these areas. Nevertheless, the [Planning Inspectorate] may grant development consent in these areas in exceptional circumstances (paragraph 5.9.9 and 5.9.10 of NPS EN-1).	Effects on visual resources are assessed in Section 14.12.
The fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent (paragraph 5.9.13 of NPS EN-1).	Effects on landscape seascape visual resources including effects on areas designated for their landscape value are assessed in Section 14.11 - 14.12.
Where a local development document in England or a local development plan in Wales has policies based on landscape character assessment, these should be paid particular attention. However, local landscape designations should not be used in themselves to refuse consent, as this may unduly restrict acceptable development (paragraph 5.9.14 of NPS EN-1).	Relevant policy and guidance documents used to inform the assessment are outlined in this Section 14.4.
In reaching a judgement, the decision maker should consider whether any adverse impact is temporary, such as during construction and /or whether any adverse impact on the landscape/seascape will be capable of being reversed in a timescale that the decision maker considers reasonable (paragraph 5.9.16 of NPS EN-1).	The effects of the elements of the project on the seascape are assessed in Section 14.11 and 14.12.

14.4.3 Planning Policy Wales

14.4.3.1 Planning Policy Wales 10 (PPW 10) sets out the land use policy of Welsh Government. Chapter 6 of PPW 10 emphasises the particular importance of statutory designations of National Parks and Areas of Outstanding Natural Beauty (AONBs) and also states that all landscapes in Wales are valued for their intrinsic contribution to a sense of place, and local authorities should protect and enhance their special characteristics, whilst paying due regard to the social, economic, environmental and cultural benefits they provide, and to their role in creating valued places. Paragraphs 6.3.19 and 6.3.20 of PPW 10 refer to the importance of LANDMAP, the use of which is discussed in the paragraph below. Section 6.5 of PPW refers to coastal areas, noting that visual intrusion and inter-visibility between land and sea will need to be carefully considered.

14.4.4 Pembrokeshire Coast National Park Local Development Plan (January 2007)

- 14.4.4.1 In relation to landscape, Policy 15 'Conservation of the Pembrokeshire Coast National Park' states development will not be permitted where this would adversely affect the qualities and special character of the Pembrokeshire Coast National Park by:
- 14.4.4.2 a) causing significant visual intrusion; and/or,
- 14.4.4.3 b) being insensitively and unsympathetically sited within the landscape; and/or
- 14.4.4.4 c) introducing or intensifying a use which is incompatible with its location; and/or
- 14.4.4.5 d) failing to harmonise with, or enhance the landform and landscape character of the National Park; and/or
- 14.4.4.6 e) losing or failing to incorporate important traditional features.
- 14.4.4.7 Policy 17 'Shore Based Facilities' states that development of shore based facilities including those linked to proposals below mean low water will be permitted where they are compatible with adjacent users.
- 14.4.4.8 In relation to renewable energy Policy 33 'notes that "small scale renewable energy schemes will be considered favourably, subject to there being no over-riding environmental and amenity considerations. Medium scale schemes also offer some potential and will be permitted subject to the same considerations. Large scale renewable energy schemes will only be permitted where they do not compromise the special qualities of the National Park. Where there are other renewable energy schemes already in operation in the area, cumulative impacts will be an important consideration".
- 14.4.4.9 It goes to state that "Onshore connections to off shore renewable energy generators will also be permitted subject to there being no over-riding environmental and amenity considerations. Developers requiring an undeveloped coastal location for onshore connections to offshore renewable energy installations will need to clearly justify this need in relation to Policy 8i) with the least obtrusive approach to design being taken".

14.4.5 Supplementary Planning Guidance

- 14.4.5.1 The Landscape Character Assessment SPG was adopted in June 2011 and provides more detailed guidance on the way that LDP policies, in particular Policy 8 'Special Qualities' and Policy 15 'Conservation of the Pembrokeshire Coast National Park' are applied. A total of 28 Landscape Character Areas are identified within the National Park.
- 14.4.5.2 The onshore control station and cable is located within LCA 7 – Angle Peninsula.
- 14.4.5.3 The Seascape Character Assessment SPG was adopted in December 2013 and includes territorial waters up to 12 nautical miles offshore and extends from Cardigan Island in the north to the Taf Estuary in Carmarthen Bay in the south. A total of 44 seascape character areas are identified and is set within the framework of the regional Welsh Seascapes study completed by CC in 2009.

14.4.6 Pembrokeshire Coast National Park Authority – National Park Management Plan 2015 – 2019.

- 14.4.6.1 The Management Plan was approved by the National Park Authority in December 2014 and the purpose of it is to provide guidance between the National Park purposes and management policies.
- 14.4.6.2 The policies within the Management Plan relating to the landscape are:
- Policy L1: Maintain and enhance landscape quality and ecological function
 - Policy L2: Maintain and enhance seascape quality and ecological function
 - Policy L3: Ensure that the development respects the special qualities of the National Park

14.4.7 LANDMAP

- 14.4.7.1 LANDMAP is the formally adopted methodology for landscape assessment and is advocated by Planning Policy Wales (PPW) and is promoted by Natural Resource Wales (NRW). It is considered to be a "whole" landscape approach that covers all landscapes, designated and non-designated in Wales.
- 14.4.7.2 LANDMAP separates each character area into nationally consistent datasets into the following five categories (Aspects) as follows:
- Geological Landscape;
 - Landscape Habitats;
 - Visual and Sensory Landscape;
 - Historic Landscape; and
 - Cultural Landscape.
- 14.4.7.3 Each category is provided with an evaluation level as provided in Table 14-2.

Table 14-2: Summary of key consultation

Evaluation	Definition
High	Of regional or county importance to the aspect
Moderate	Of local importance to the aspect
Low	Of little or no importance to the aspect
Unknown	Insufficient information exists to evaluate the area

14.4.8 National Character Areas

- 14.4.8.1 Based on the five LANDMAP aspect areas, NRW have prepared 48 National Character Areas (NCA) that cover the whole of Wales. Each NCA provides descriptive profiles, highlighting what distinguishes one landscape from another, with reference to their regionally distinct natural, cultural and perceptual characteristics.

14.5 Consultation

- 14.5.1.1 As discussed in Chapter 1: Introduction, the licensing and consenting of the mWave marine energy device and its cable route was originally intended to be undertaken within the consenting and licensing of the Marine Energy Wales META project, with mWave being deployed at the eastern end of META Site 8. Whilst the mWave device is short term and of limited extent compared to the META project, the consultation undertaken for the large META Project, which included four possible onshore sites for a control station, is of value.
- 14.5.1.2 A summary of the key issues raised during consultation specific to landscape seascape visual assessment is outlined below in Table 14-3 together with how these issues have been considered in the production of this Environmental Statement chapter.

Table 14-3: Summary of key consultation issues raised during consultation activities undertaken for the mWave project relevant to landscape seascape visual impact.

Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter
18 January 2019	PCNPA Scoping opinion based on four potential onshore site options.	The final location of this (onshore control station) has not been established however, the most appropriate location in terms of landscape impact would be adjacent to the existing toilet facilities at Freshwater West.	The final location of the onshore control station is now established. Chapter 3 Needs and Alternatives provides details of the preliminary screening which was undertaken to facilitate site selection. Whilst the location beside Freshwater West toilet facilities has not been chosen for other reasons, the final site is on agricultural land at East Pickard Bay which is distant from the majority of receptors and has natural screening through vegetation and topography.
18 January 2019	PCNPA	In respect of the above further to the scoping report visualisations of the onshore control station will be required with view from public positions and the coastal path.	The final site for the onshore control station is distant from public receptors, and has limited extent of view (Table 14.10). An indicative elevation has been provided of the control station. Illustrative photographs from three viewpoints have been prepared including from the coastal path and an assessment of effect has been undertaken on visual receptors and visual amenity (14.12 and 14.13).
18 January 2019	PCNPA	The landscape visual impact assessment should include visualisations of all onshore equipment and above water onshore equipment.	An indicative elevation has been provided of the control station. The offshore device sits on the seabed. A figure illustrating the device can be found in Chapter 2: Project Description.
18 January 2019	NRWa.	We note that landscape, seascape and visual effects are scoped in to the EIA for Sites 6-8 and agree with this assessment. The SLVIA are to be carried out in accordance with the Guidelines for Landscape and Visual Impact Assessment (third edition) and agree that a 5km study area for each site is appropriate. We advise that the following should be added to the baseline studies: Wales National Marine Character Areas (NRW) LANDMAP mapping information - all 5 Aspect Areas. It is stated that there would be no visual effect on the seascape from the onshore elements, however there would be a potential visibility of cable and building from the sea and shore depending on how they are sited.	A SLVIA has been undertaken for the various phases of the mWave Project covering the onshore elements at East Pickard Bay and the offshore device which sits on the seabed. A study area of 5km has been used in the assessment. The SLVIA has been carried out in accordance with the Guidelines for Landscape and Visual Impact Assessment (third edition) and has taken onboard the recommended baseline information. A figure has been provided to illustrate the control station. Photography illustrating the landscape and views from three viewpoint locations to the control station site, which are representative of sensitive receptors, have been provided. The extent of the control station has been marked on the photographic illustrations from three viewpoints. These viewpoints have also been used to consider the effect of the offshore device.

14.6 Methodology to inform the baseline

14.6.1 Introduction

- 14.6.1.1 The Guidelines for Landscape and Visual Impact Assessment (GLVIA3) are broad guidelines rather than detailed prescriptive methodologies. The methodologies tailored for the assessment of the mWave project are based on GLVIA3 guidance and are presented in section 14.9. The methodology is summarised below.
- 14.6.1.2 Landscape seascape visual assessment studies provide an analysis of the physical and perceptual attributes of an area. The assessment of landscape and seascape issues relates to the potential effect of development on the landscape/seascape resource, which encompasses character, quality and distinctive features including topography, drainage, vegetation, built features, the foreshore and the off shore marine environment, , whereas the study of visual constraints is concerned with the potential effect on views and visual amenity.
- 14.6.1.3 The analysis of visual constraints includes the identification of representative views towards the mWave site, which are all from publicly accessible locations, including public rights of way. Visual receptors are of varying sensitivity to change, with views from public footpaths as being more sensitive to change than those from highways or places of work where attention is focused elsewhere.
- 14.6.1.4 The landscape seascape visual assessment combines the results of both an objective and subjective appraisal of the landscape and seascape. This appraisal consisted of three stages including a desk study, a field survey and an analysis of the likely effects resulting from the proposed development in light of these studies. The study area for the assessment extends to a radial distance of 5 km from the centre of the onshore Control Station.
- 14.6.1.5 As there are no above surface water elements visible to the mWave project during the operational phase, it is considered that the main effects on landscape character and visual amenity will be a result of the onshore control station. Due to the scale of the project (Chapter 2 Project Description), the visual perception of the mWave project within the landscape and seascape will diminish with ever increasing distance. Therefore, this study area is considered to be appropriate for the purposes of this assessment.
- 14.6.1.6 With respect to the seascape baseline, information has been derived from the Marine Character Areas (MCA) and the PCNPA Seascape Character Assessment (LDA, PCNPA, 2013).
- 14.6.1.7 With respect to the landscape baseline, information has been derived from PCNPA Landscape Character Assessment (2011) and NRW LANDMAP database. LANDMAP is an “all-Wales Geographical Information System based landscape resource where landscape characteristics, qualities and influences on the landscape are recorded and evaluated into a nationally consistent dataset”. It is administered by NRW and comprises five spatially related datasets or aspect layers as follows:

- Geological Landscape: “considers the physical, primarily geological influences that have shaped the contemporary landscape and identifies those landscape qualities which are linked to the control or influence exerted by bedrock, surface processes, landforms and hydrology”;
- Landscape Habitats: considers the distribution of habitats at a broad scale comparable to other aspect layers leaving more localised information to be accessed through other datasets;
- Visual and Sensory: considers what aspects of landscape are “perceived through our senses, primarily visually, from the physical attributes of landform and landcover to their visible patterns of distribution and their consistent relationships in particular areas”;
- Historic Landscape: identifies “those classes of historic land uses, patterns and features that are structurally prominent and contribute to the overall historic character of the present landscape”; and
- Cultural Landscape: within LANDMAP this is “taken to embrace any kind of human activity that can be related to landscape. It includes the contrived and sometimes pre-eminent expressions of culture, like art or literature, in which the landscape maybe depicted or described, as well as the prosaic and commonplace expressions, like the choice of building materials, which were perhaps not intended to create something valuable or special”.

14.6.2 Temporal scope

- 14.6.2.1 The mWave project is to allow for temporary testing of the wave energy converter within the offshore site, with the supporting onshore facilities, for the project lifetime, which is up to 18 months. The resulting temporary effects are considered to be fully reversible and these effects are considered for all phases (installation/decommissioning phase and operational phase) in Sections 14.11 - 14.13.

14.6.3 Desktop study

- 14.6.3.1 Information on the mWave project study area was collected through a detailed desktop review of existing studies and datasets including the assessment of 1:25,000 scale Ordnance Survey maps together with aerial photography to establish the general context of the mWave landscape/seascape visual study area. This was followed by an analysis of relevant documentation (reports, development plans, assessments, government guidance etc.) to clarify the landscape and planning context. These are summarised at Table 14-4 below.

Table 14-4: Summary of key desktop reports.

Title	Source	Year
Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3)	Landscape Institute and the Institute of Environmental Management and Assessment	2013
GLVIA3 Statement of Clarification 1/13	Landscape Institute and the Institute of Environmental Management and Assessment	2014
National Park Management Plan 2015 - 2019	Pembrokeshire National Park Authority	2014
Local Development Plan	Pembrokeshire National Park Authority	2010
LANDMAP Methodology "Visual and Sensory"	NRW	2019
Pembrokeshire Coast National Park Coast Seascape Character Assessment	Pembrokeshire National Park Authority	2013
Marine Character Areas An approach to Seascape Character Assessment	Natural England, Scottish Natural Heritage and Countryside Council for Wales	2012

14.6.4 Identification of landscape designations

- 14.6.4.1 All landscape designations (see Figure 14-2) within the mWave landscape seascape visual study area that could be affected by the installation, operation and maintenance, and decommissioning of the mWave project were identified using the two-step process described below.

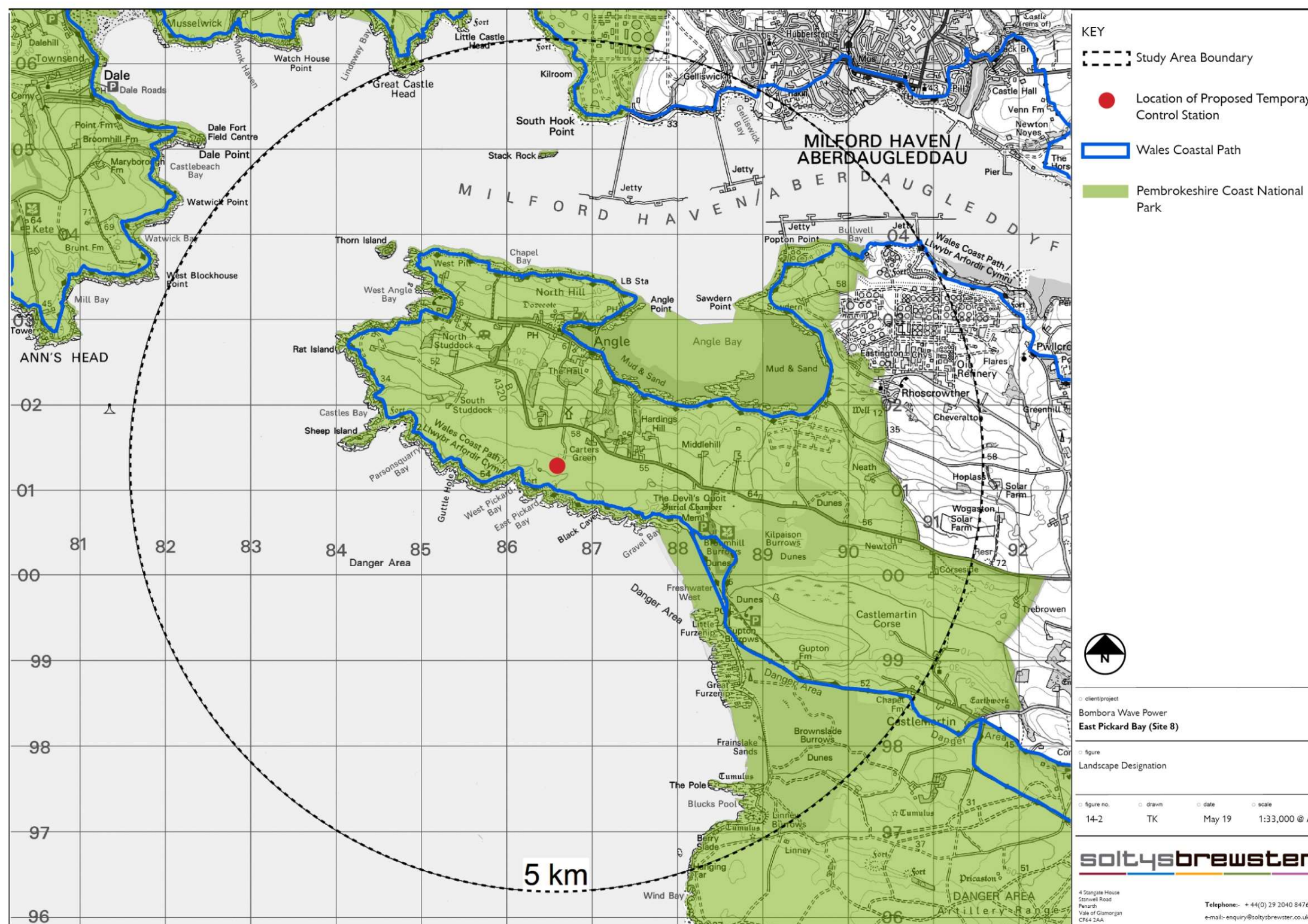


Figure 14-2: Landscape Designations.

- Step 1: All designated sites of international, national and local importance within the mWave landscape seascape and visual study area were identified using a number of sources. These included National Resources Wales LANDMAP database, Natural Resources Wales National Character Areas, National Resources Wales, National Seascape Assessment for Wales, Pembrokeshire Coast National Park Seascape Character Assessment (SCA 31, 32 and 34), Pembrokeshire Coast Landscape Character Assessment, and
- Step 2: Using the above information and expert judgement, sites were included for further consideration if
 - e.g. A designated site directly overlaps with the mWave project; and
 - e.g. Sites and associated features were located within the potential Zone of Theoretical Visibility (ZTV) for impacts associated with the mWave project.

14.6.5 Site specific surveys

14.6.5.1 To inform the EIA, a site specific survey was undertaken within the terrestrial areas of the 5km study area to record the character and identify key landscape features and visual analysis as per the methodology in GLVIA3. A summary of the surveys undertaken to inform the landscape, seascape and visual assessment is outlined in Table 14-5 below and the viewpoint selected in order to assess the effects on visual amenity is outlined in Table 14-6.

Table 14-5: Summary of site-specific survey data.

Title	Extent of survey	Overview of survey	Survey contractor	Date	Reference to further information
mWave project landscape and visual survey	Terrestrial based locations within the 5km study area.	Environs and shore-based survey based on ZTV analysis and sensitive receptor locations with views to the proposed mWave project..	SBC	April 2019	

Table 14-6: Viewpoints.

View Point	View Point Orientation	View Point Description
VP1	Hill Fort– 400 m to the south west.	View from Hill Fort near Wales Coast Path
VP2	Wales Coast Path – 275 m to the south.	View from Wales Coast Path.
VP3	War Memorial –1.86km m to the south east.	View from War Memorial, adjacent to the B4319.

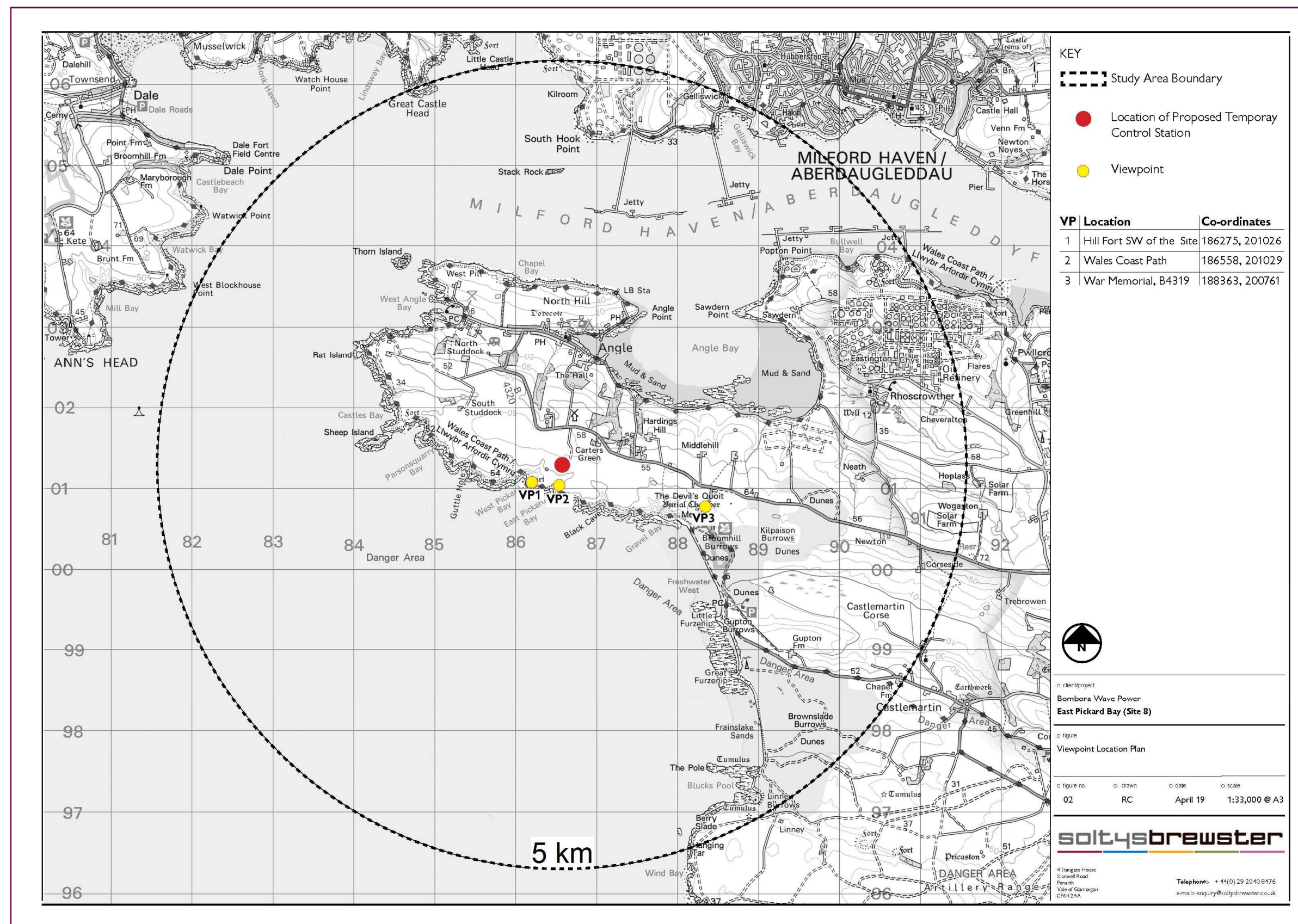


Figure 14-3: Viewpoint Location Plan

14.7 Baseline environment

14.7.1 Introduction

- 14.7.1.1 The aim of the baseline study is to describe the individual components of the physical landscape and the seascape which are present on-site and within the 5km landscape/seascape visual study area and to provide an understanding of how the landscape and seascape constituent elements including character, spatial variation, geographic extent, condition, the way in which the landscape and seascape is experienced, and the value attached to it which may be affected by the mWave project.
- 14.7.1.2 The mWave deployment site lies off the south coast of Angle peninsula with the communication cable making landfall at East Pickard Bay. The site is some 2.5km from Sheep Island, the southern extent of the Milford Haven Waterway, and some 1.3km west of Freshwater West beach. The device is to be located is positioned offshore at approximately 415m below Mean Low Water Spring (MLWS) at a water depth of around 11m below chart datum (bcd). The shoreline, where the communication cable will make landfall, is located within the PCNPA.
- 14.7.1.3 The landscape and seascape can be described as wild and exposed, made up of large, exposed south facing jagged sandstone cliffs with the extensive sandy beach at Freshwater West. Close to the shore the seascape is used for leisure boating and recreational activities. Commercial shipping is a common element and visibly noticeable in the seascape beyond the Angle peninsula (Chapter 12 Shipping and Navigation). This test site also lies adjacent to a Ministry of Defence (MOD) Danger Area.
- 14.7.1.4 An assessment of the NRWs Marine Character Areas and PCNPA Seascape Character Assessment has identified 2 Marine Character Areas and 5 Seascape Character Areas within the study area. An assessment of NRW LANDMAP database and National Character Assessment, plus PCNPA Landscape Character Assessment has identified 5 distinct character areas, which along with the seascape character areas are described in the following paragraphs.

14.7.2 Assessment of Baseline Seascape Character Areas

- 14.7.2.1 This mWave site lies in MCA 22: South Pembrokeshire Coastal and Inshore Waters and incorporates the marine components of the Pembrokeshire Coast National Park Seascape Character Areas (PCNPSCA); 34: Freshwater West. The key characteristics of the five MCAs within the study area are as follows;

MCA 21: Milford Haven

- Drowned ria with steep red sandstone cliffs, sheltered bays and shallow creeks surrounded by rolling and occasionally steep sided hills with distinctive woodland down to the water's edge.
- The sheltered tidal estuary creates an internationally and nationally important natural harbour with mudflats, sandy inlets, marshes, creeks and bays.

- Strong currents and swell at mouth of the estuary becoming more sheltered the further inland travelled where tidal changes take over as the main influence factor on the character.
- The ria forms a unifying theme between the two distinctly contrasting characters of the enclosed unsettled upper stretches in the east and the open developed estuary in the west
- Major deep sea port, Pembroke Port and Milford Docks, with extensive industrial facilities, oil refineries, the largest oil/gas/petrochemical storage facilities in the UK and power station.
- Dispersed settlement with single dwellings and some small medieval and traditional villages along the upper stretches of the river systems, with limited transport links.
- Historically important quays at Milford Haven and Pembroke, along with Carew Castle and tidal mill, medieval waterside settlements and many features associated with military defence.
- Popular recreation and sailing destination especially around Dale, although low key recreation including small boat moorings elsewhere. High numbers of walkers use the coastal path which hugs the coastline.
- Busy ports and commercial shipping channels to the west with tanker terminals, ferry terminal and marinas contrasting to the high levels of tranquillity within the sheltered tidal estuary to the east.
- Varied views within the estuary often contained and channelled by the surrounding steep hills of Pembrokeshire Coast National Park, opening up towards the wide estuary mouth. The oil refinery and associated infrastructure dominates views into the MCA, including from the surrounding seas.

MCA 22: South Pembrokeshire Coastal and Inshore Waters

- Diverse, rugged coast forming the southern edge of PCNP, with rocky sections, steep cliffs, arches and stacks interspersed with small coves, scalloped bays and sandy beaches.
- Large area of sea, mainly 30-60 m deep on gravelly sand bed with shallower waters over sand on St Gowan Shoals to east (10-30 m depth);
- Internationally important and diverse coastline with rocky outcrops, deep red sandstone, white limestone cliffs (designated SAC) and wave cut platforms as well as numerous sandy coves and large sand dune systems;
- Includes areas within the Limestone Coast of South West Wales SAC, designated for rare and scarce maritime plants and the Pembrokeshire Marine SAC, which recognises the area's varied marine habitats and rich marine life;
- Generally low wave stress except off St Govan's Head which has the potential for steep seas, large waves and strong dangerous currents with a wild character. Shallow sometimes treacherous waters en-route to Milford Haven at Turbot Bank;
- Manorbier Castle is a strong coastal landmark with associated traditional settlement dating from the 12th century, designated as a Conservation Area;
- Other rich archaeological evidence for a long history of human occupation, such as ancient relics preserved beneath Stackpool Warren and coastal promontory forts;
- Several wrecks scattered across the shallow waters offshore from Linney Head and on the approach to Milford Haven;
- Offshore waters are used by ferries, commercial shipping and fishing boats;
- MOD practice ranges strongly influence the MCA with large areas restricted at Manorbier and Castlemartin, associated with several wartime aircraft losses;
- Milford Haven Harbour limits extend out into the west of the MCA;
- Popular with walkers using the Pembrokeshire Coast Path and network of footpaths with good access to beaches. The area is also popular with climbers and kayakers;

- Wide, unspoilt views out to sea and along the coastline from headlands and cliff tops, as well as from sections of the Pembrokeshire Coast Path, including views to Caldey Island, as well as Lundy Island and the North Devon coast;
- Very tranquil, remote and often wild coastline when the firing ranges are not operating. Long stretches of coastline have little or no settlement; and
- Offshore open sea area with simple, consistent and unified marine character at a vast scale and a significant sense of openness, remoteness and exposure.

14.7.2.2 A description of the 5 SCA that fall within the study area along with their key sensitive receptors are as follows and shown in Figure 14-4:

SCA 29: Southern Inshore Waters

14.7.2.3 This area stretches off the south coast from Skomer to south of Lydstep Point, wrapping around the coastal seascape areas. It is mainly moderately deep except for St Gowan's Shoal to the east. The west forms the setting to the islands and also is busy as part of the approaches to Milford Haven. The east is used as part of the Castlemartin MOD range.

14.7.2.4 The key sensitive receptors of the SCA are:

- Majority of the area is within the Pembrokeshire Marine SAC.
- The area wraps around Skomer and Skokholm to the west forming an important part of their setting.
- Unspoilt views from the western and southern coast, including from the Pembrokeshire Coast Path.
- Open sea area with unspoilt, simple, consistent and unified marine character at a vast scale and a significant sense of openness and remoteness.

SCA 31: Outer Milford Haven

14.7.2.5 The area forms the outer part of Milford Haven which is a large sheltered drowned ria. The mouth of the Sound has an exposed open sea aspect with strong tides and currents contrasting with the sheltered bay of Dale, small beach at West Angle Bay, and creeks such as Sandyhaven Pill. There is nature conservation interest especially around Dale and coastal forts relating to the Haven's historic strategic value. The sea area is busy with ferry and commercial shipping, with the refinery and other energy and port infrastructure in background views and the area is popular for recreation and sailing, especially around Dale.

- Remote, unspoilt cliffs and sheltered bays and estuaries.
- Popular recreational destinations such as Dale.
- Nature conservation interest especially around Dale. Richness of military and nautical history.
- Pembrokeshire Coast Path.

SCA 32: Inner Milford Haven

14.7.2.6 This deep water ria acts as a commercial and ferry shipping channel and sheltered harbour, serving oil refinery, gas and oil storage, power station and related industrial and urban settlement with tall structures rising up above the surrounding slopes. This contrasts with indented bays and silted inlets with nature conservation interest and recreational uses, and farmed hinterland.

- Historic character of older urban settlements and villages, historical features and key views such as to and from Pembroke Castle.
- Recreational boats
- Close association with Daugleddau river system, of nature conservation and recreational importance.
- Nature conservation importance of wetlands and mudflats.
- Pembrokeshire Coast Path
- Large numbers of urban receptors and passing traffic for example on Cleddau Bridge.

SCA 34: Freshwater West

14.7.2.7 Freshwater West (no. 34) (PCNPSCA 34, 2013) can be described as a large, exposed south and west facing coast with a high energy beach. Backed by dunes and enclosed by the limestone cliffs at Linney Head to the south, with low jagged sandstone cliffs backed by semi natural vegetation on the south coast of Angle peninsula. Freshwater West is known for large waves and strong dangerous currents. As a result, there is low key, recreational use of beaches primarily used by tourists and experienced watercraft users. Some leisure boating and ship anchorage but restricted by the use of the sea for the Castle Martin MOD firing range. There are no settlements in the immediate vicinity; there is a disused airfield present. These factors can detract from the sensitivity of the area.

14.7.2.8 The key sensitive receptors of the SCA are:

- Remote, unspoilt sweep of beaches and dune systems with craggy cliffs;
- Wide views across bay and to focal points such as St Ann's Head;
- Tranquillity when no firing on ranges;
- Important recreational destination; and
- Walkers using the Pembrokeshire Coast Path.

SCA 35: Castlemartin Coastal Waters

14.7.2.9 A remote, rugged coast of vertical limestone cliffs with arches and stacks, highly exposed and with shallow waters. The land area and sea are used as a military practice firing range which reduces tranquillity when in operation and restricts access to the coastal path which has panoramic sea views. The hinterland landform is a gently undulating coastal plateau around 50m AOD with large areas of semi-natural grassland.

- Remote, wild, exposed coastline.
- Spectacular indented cliffs with numerous features such as arches, stacks and caves.
- Significant nature conservation and archaeological interest.
- Openness and sustained sea views, including views on clear day to Lundy Island.
- Pembrokeshire Coast Path is a sensitive receptors.

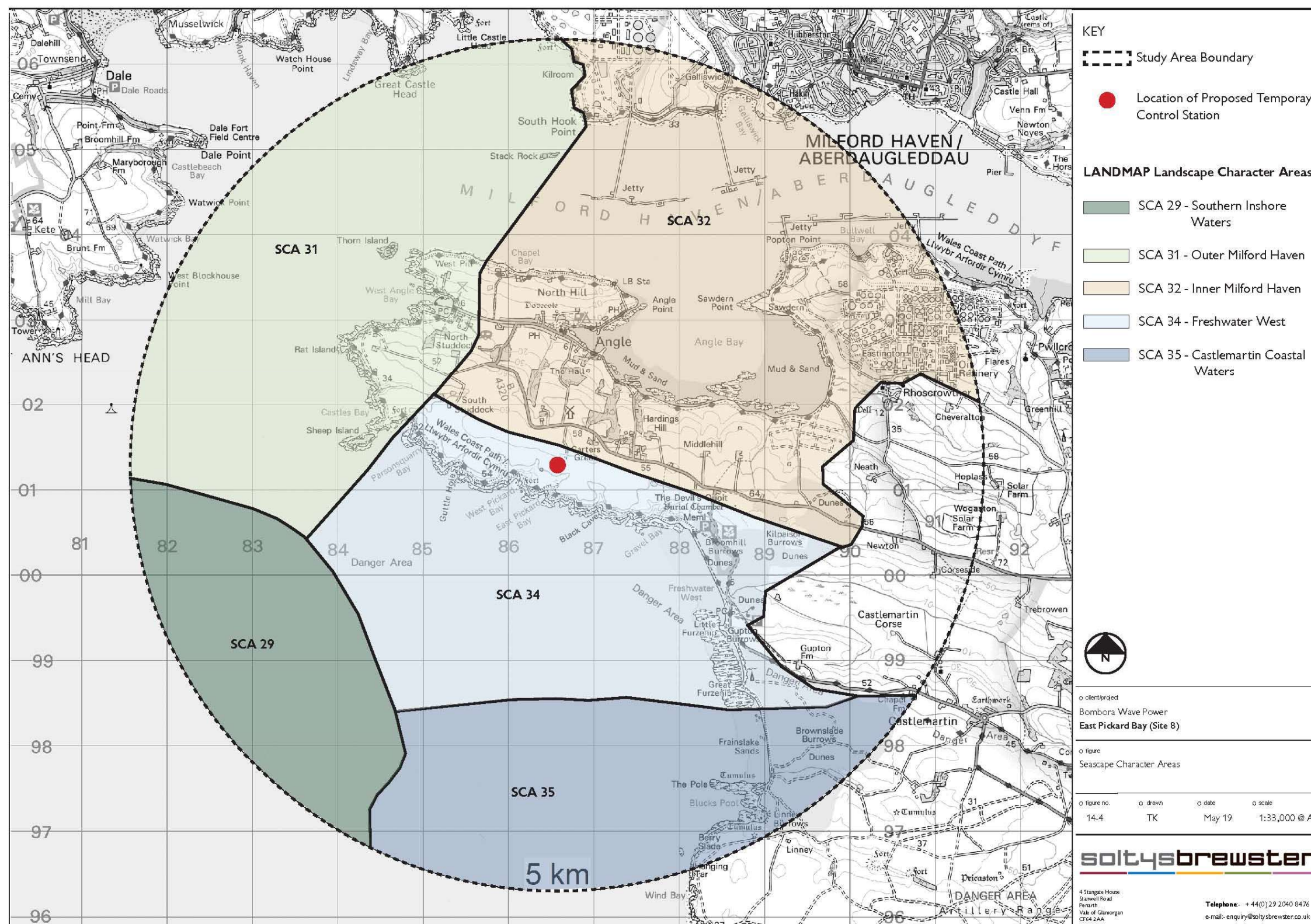


Figure 14-4: Seascape Character Areas

14.7.3 Assessment of Baseline Landscape Character Areas

14.7.3.1 A summary of each LANDMAP Aspect Area and description covering the study area are provided in Table 14-7 and the areas within the study area once LANDMAP Guidance Note 3 has been applied are shown in Figure 14-5 to Figure 14-11 below.

Table 14-7: LANDMAP Aspects Area Summary

Aspect type	Area ID	Area name	Classification	Evaluation
Geological Landscape				Low
	PMBRKGL152	Gelliswick	Engineered feature and	High
	PMBRKGL164	(refinery)	Reclaimed Infill Land	
		Gelliswick Bay	Rock cliff and Shore	Low
	PMBRKGL232	Rhoscrowther	Engineered feature and	Moderate
		(refinery)	Reclaimed Infill Land	
	PMBRKGL234	Hundleton	Undulating lowland hill	Outstanding
	PMBRKGL235	Broomhill –	Sand dune	
		Brownslade Burows		
	PMBRKGL233	Angle	Undulating Lowland Hill	Moderate
			Terrain	Moderate
	PMBRKGL236	Angle Bay	Soft Sediment and Cliff	
			Shore	
	PMBRKGL237	West Angle Bay –	Rock cliff & Shore	Outstanding
		Freshwater West		
		Coast		
	PMBRKGL238	St. Govans head –	Rock Cliff and Shore	Outstanding
		Linney Head Coast		
				Outstanding
	PMBRKGL239	Castlematin Corse	Other	Moderate
	PMBRKGL244	Pwllcrochan Flats	Rock Cliff and Shore	

	PEMBRKLH874	West Angle Bay –	Mosaic	High
		Freshwater West	Residential/Green Space	
	PEMBRKLH649	Milford Haven		Low
	PEMBRKLH602	Northern Coast of	Intertidal	High
		Daugleddau		
	PEMBRKLH365	Sandy Haven	Intertidal	High
	PEMBRKLH401	Angle Bay	Intertidal	High
	PEMBRKLH608	N. of Castlemartin	Improved Grassland	High
	PEMBRKLH605	Bangeston Wood	Mosaic	Moderate
	PEMBRKLH940	Angle Bay – West	Mosaic	Moderate
		Angle Bay		
	PEMBRKLH584	Southern Coast of	Intertidal	High
		Daugleddau		
Landscape Habitat	PEMBRKLH376	West Angle Bay –	Mosaic	Outstanding
		Freshwater West		
	PEMBRKLH142	Bromhill Burrows		Sand Dune
	PEMBRKLH780	Castlemartin Corse	Fen/Swamp	High
	PEMBRKLH865	Brownslade		
		Burrows	Sand Dune	High
		Freshwater West	Intertidal	
	PEMBRKLH874			
	PEMBRKLH359	Freshwater West-	Mosaic	High
		St.Govans Head		
	PEMBRKLH146	Castle Martin	Neutral Grassland	Outstanding
		Artillery Range		

Visual and Sensory	PMBRKVS063	Merrion Ranges	Flat Farmland	Low	Cultural Landscape	PMBRKCL006	Milford Haven	Communications and	Outstanding
	PMBRKVS065	Angle	Open Rolling Lowland	Moderate			Waterway	Transport	
	PMBRKVS068	Hill Mountain	Rolling Farmland	Moderate		PMBRKCL007	Refineries and	Power generation and	High
	PMBRKVS074	St. Anns Head	Cliff & Cliff Tops	Outstanding			Terminals	Distribution	
	PMBRKVS078	Gelliswick Bay	Intertidal	High		PMBRKCL196	Lowlands	Agricultural	High
	PMBRKVS077	Great Castle Head	Cliff & Cliff Tops	High					
	PMBRKVS079	Kilpaison Burrows	Dunes & Due Slack	High		PMBRKCL232	Post Industrial	Urban Settlement	Low
	PMBRKVS081	Frainslake Sands	Intertidal	Outstanding			Urban Settlements		
	PMBRKVS090	Industry/Milford Haven	Urban	Low					
	PMBRKVS117	Angle Bay	Intertidal	High					
Historic Landscape	PMBRKHL43916								
	PMBRKHL43917	Texaco Oil Refinery	Chemical Industry	Moderate					
	PMBRKHL43920	Angle Airfield	Large Fields	Low					
	PMBRKHL43918	Rhoscrowther	Large Fields	High					
		West Angle to	Cliff Top	High					
	PMBRKHL43902	Freshwater West							
		Monk Haven to	Cliff Top	High					
		Gelliswick		Moderate					
	PMBRKHL43880	Esso Oil Refinery	Chemical industry	Moderate					
	PMBRKHL43889	Liddeston	Strip Fields – Medieval	Moderate					
	PMBRKHL46189	Castlemartin Corse	Other Marginal Land	High					
	PMBRKHL46189	Kilpaison and Brownslade Burows	Dune/Foreshore	Outstanding					
		Castlemartin Range							
	PMBRKHL46187	West	C20th Military	Outstanding					

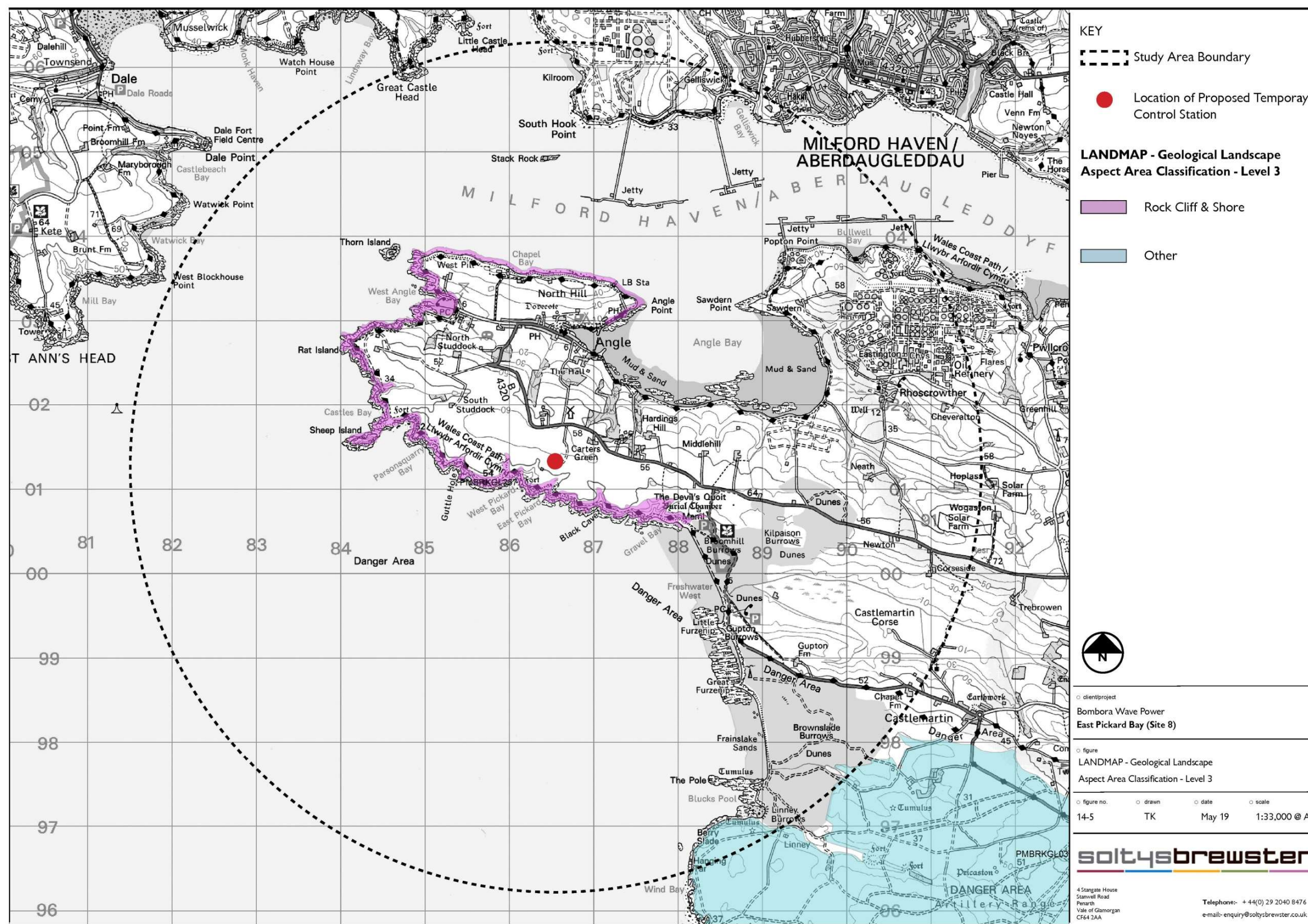


Figure 14-5: LANDMAP Geological Landscape Aspect Area Classification Level 3

mWave Marine Energy Device and Onshore Infrastructure - Environmental Statement

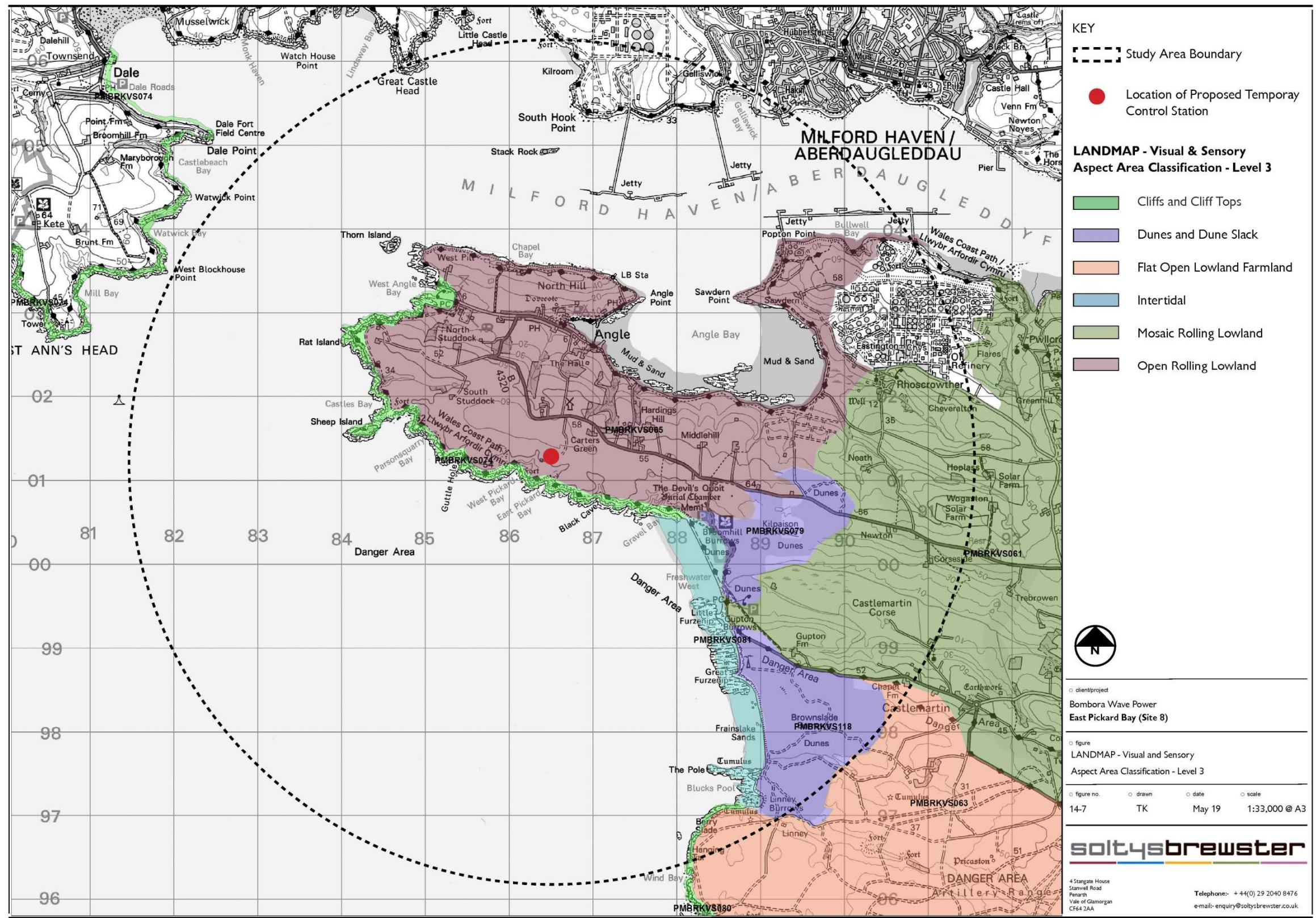


Figure 14-7: LANDMAP Visual and Sensory Aspect Area Classification Level 3

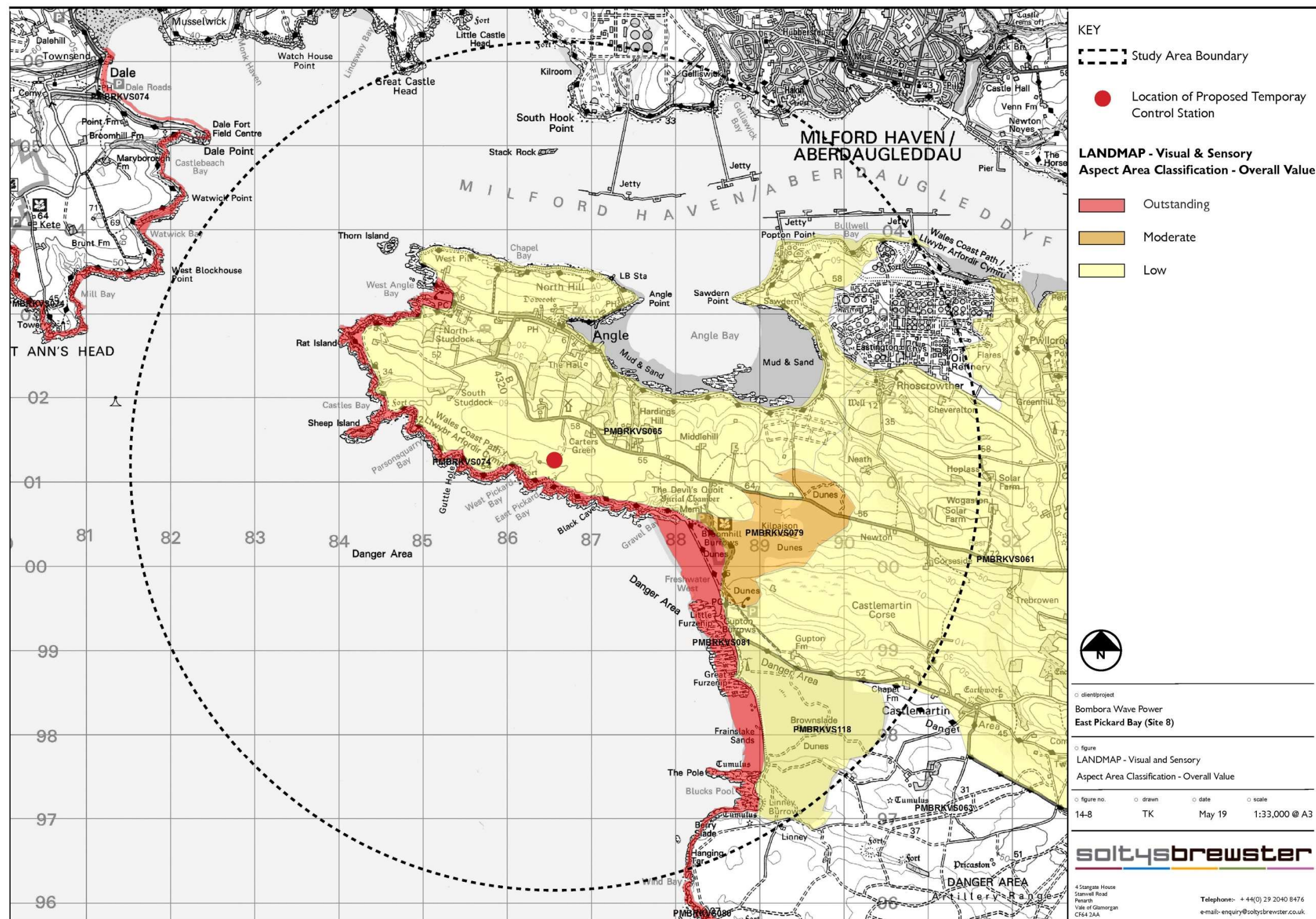


Figure 14-8: LANDMAP Visual and Sensory Aspect Area Classification Overall Value

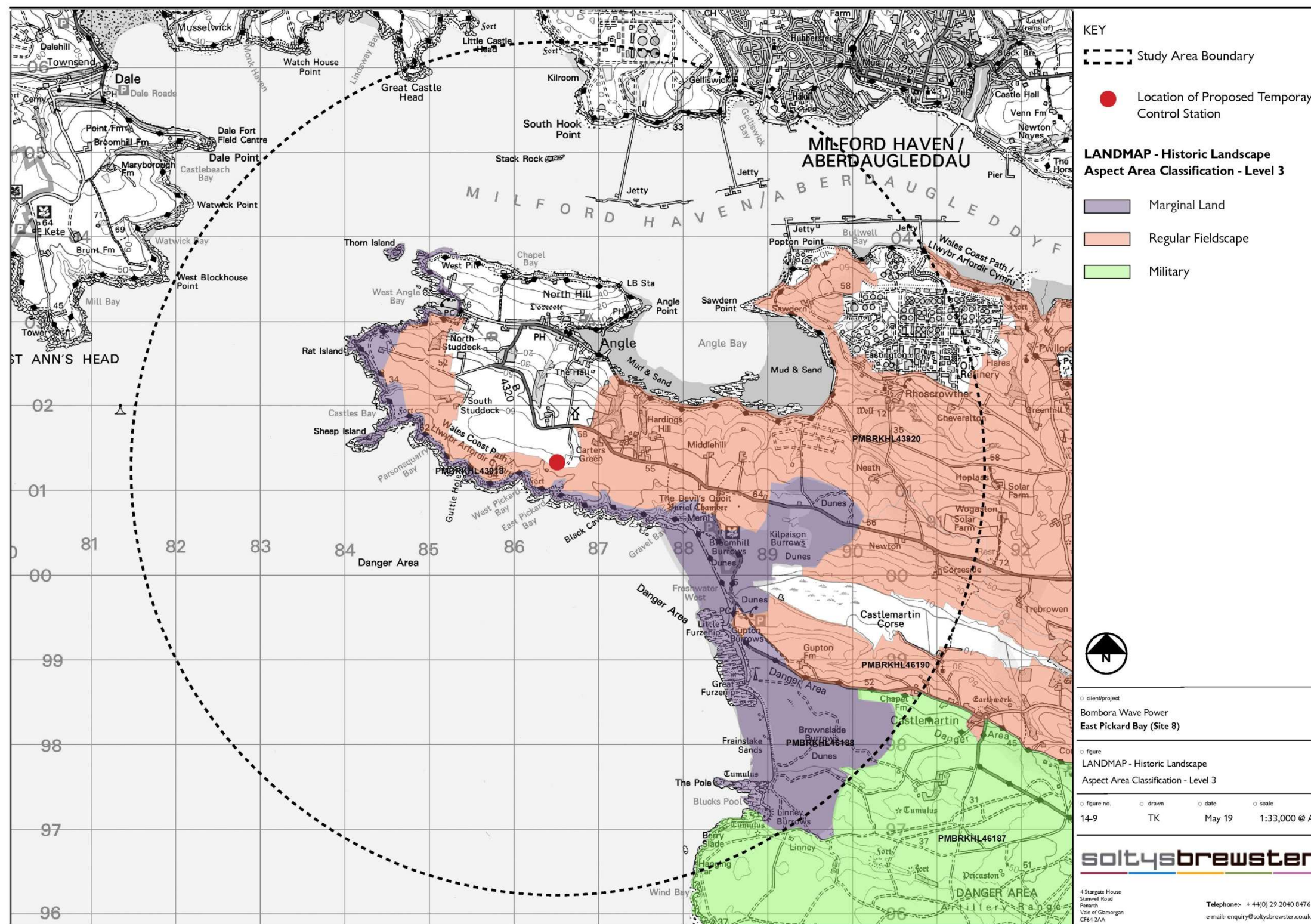


Figure 14-9: LANDMAP Historic Landscape Aspect Area Classification Level 3

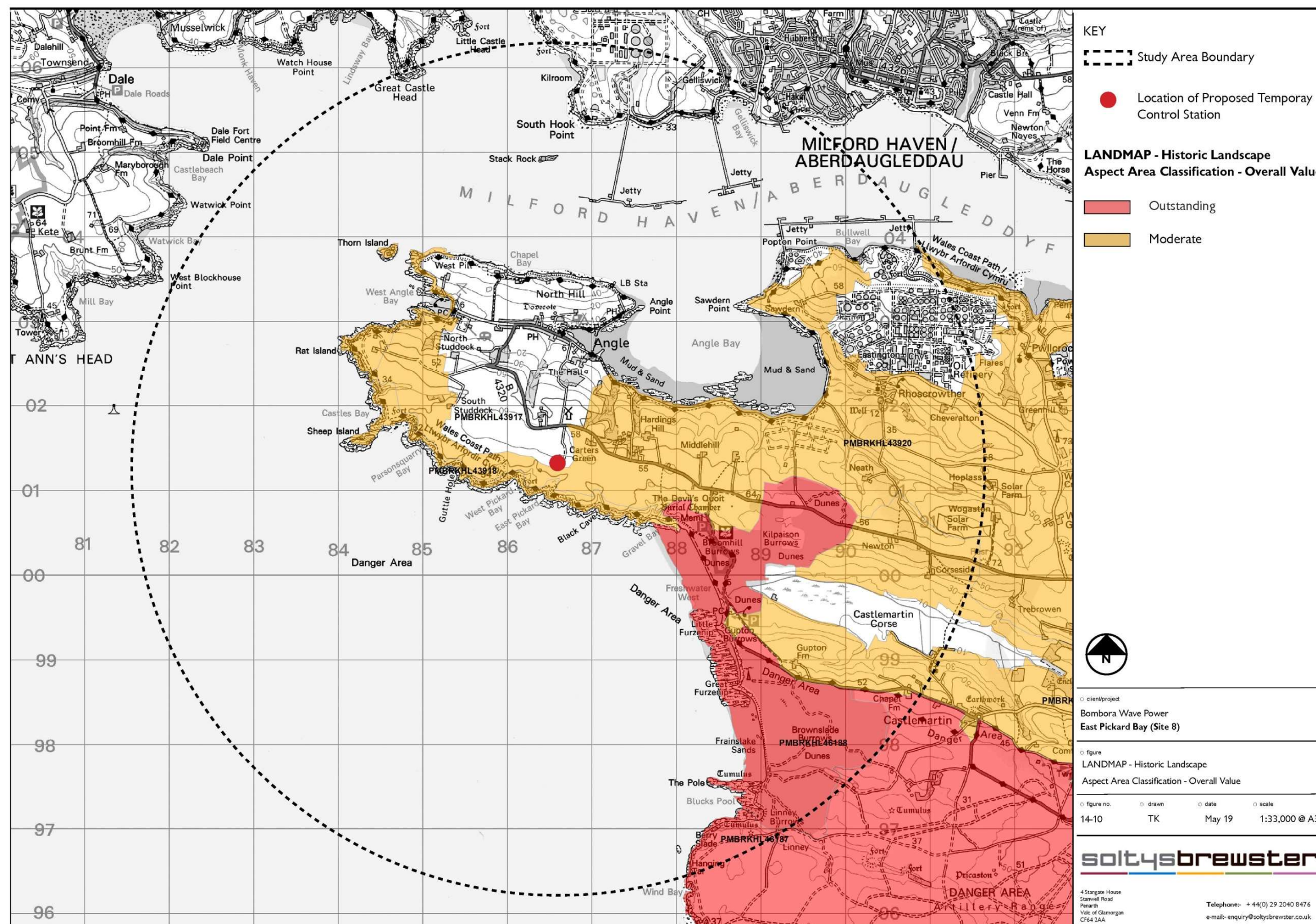


Figure 14-10: LANDMAP Historic Landscape Aspect Area Classification Overall Value

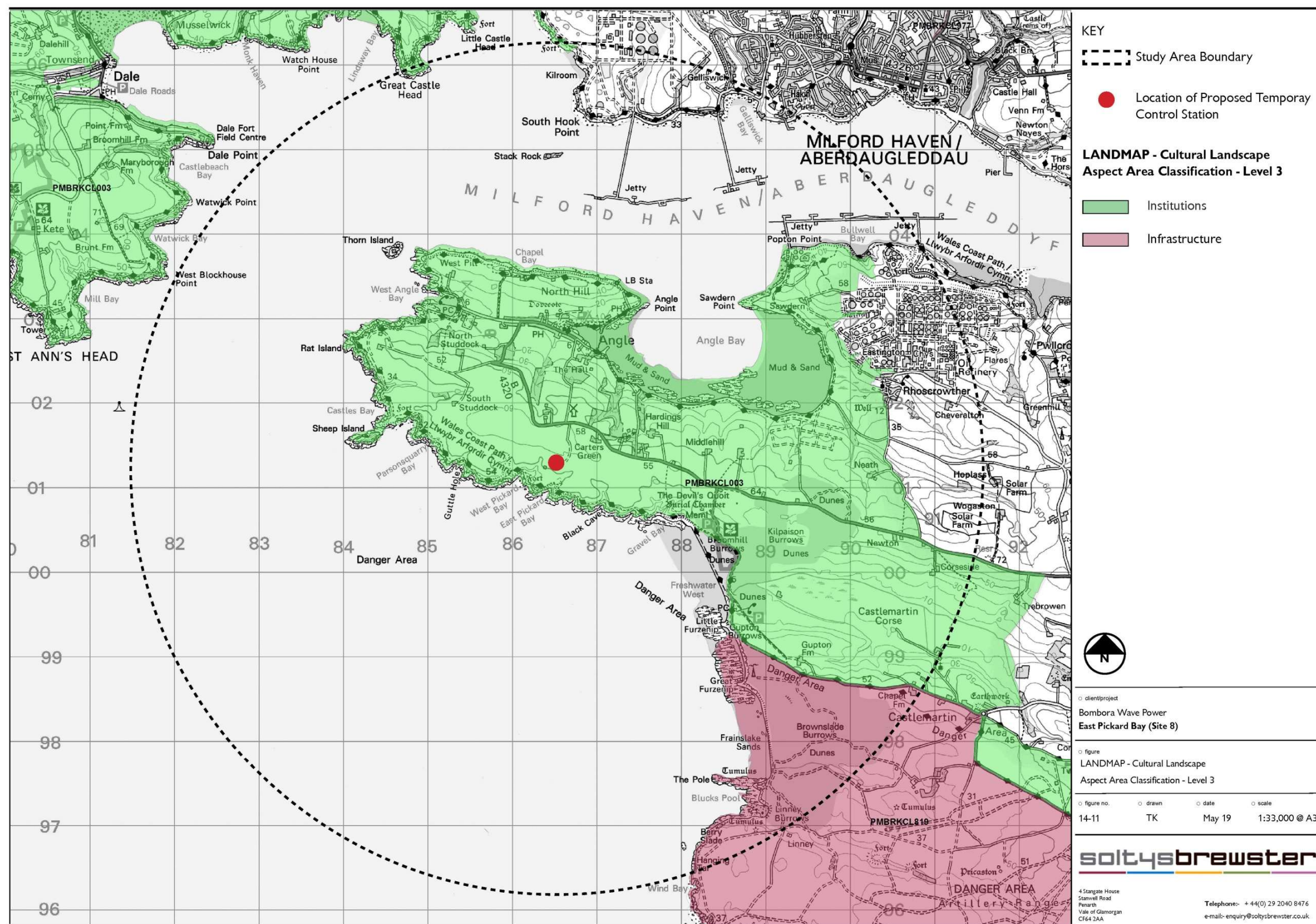


Figure 14-11: LANDMAP Cultural Landscape Aspect Area Classification Level 3

14.7.3.2 Based on the 5 LANDMAP aspect areas, NRW have identified 48 broad scale National Character Areas for Wales (NCA). The study area partially encompasses two NCA, which a brief description of each is provided below:

NCA 47 South Pembrokeshire Coast

14.7.3.3 The South Pembrokeshire Coast character area spans from Pendine in the east to the limestone cliffs and bays of the Angle Peninsula in the west. It incorporates numerous popular beaches, villages and the notable historic seaside town of Tenby. Mostly within Pembrokeshire Coast National Park, the area also contains the Manorbier and Stackpole Warren Landscapes of Special Historic Interest and military firing ranges at Castlemartin, Manorbier, Penally and Pendine. There are also sections of Heritage Coast.

14.7.3.4 Inland, a limestone plateau with gentle rolling scarp and vale landform is covered by mixed agricultural fields and hedgerows. In the east there are numerous small, enclosed, wooded incised valleys. Generally the inland landscape terminates abruptly in spectacular cliffs with headlands and with sandy bays sometimes backed with dunes.

14.7.3.5 Strong Medieval influences are apparent with prominent open field systems around Manorbier. Mining and quarrying remains (for limestone, iron, coal) are seen in the eastern part, coinciding with the edge of the South Wales Coalfield. Today, the coast forms a focus for tourism and recreation activities and the attractive seaside towns of Tenby and Saundersfoot are very popular. In contrast a large area of coast is used by the military as artillery ranges and retains a sense of remoteness.

NCA 48 Milford Haven

14.7.3.6 Fortress Haven, defended for millennia by prehistoric promontory forts, Mediaeval castles and massive Palmerston forts, is a drowned river valley or ria, providing an immense expanse of deep-water anchorage for today's oil-carrying super tankers. It is a naturally strategic place, with outer headlands and cliffs ideal for defensive installations. Today it conveys the sense of being both industrially of supra-importance, and of a maritime playground for sailors and yachtsmen. Its role as an important military bastion did not cease until after the Second World War.

14.7.3.7 The area is served by the towns of Haverfordwest, Milford Haven and Pembroke, whose existence and character relate closely to the ria. Elsewhere, villages and hamlets are dispersed along roads, their intersections or at former landing places for cross-Haven ferries. The prominent industry at Pembroke Dock and Milford Haven, with oil refineries and their jetties dominating the coastal landscape at the mouth of the Haven, contrasts remarkably with the intimate and rural landscapes of the inland ria or Daugellau, and its surrounding woodland slopes and and farmland. The modern industrial leviathans also coexist with areas that are of international and national nature conservation interests. The Daugleddau estuaries and the Cleddau river basins form part of the Pembrokeshire Coast National Park.

14.7.3.8 In addition to the each of the LANDSCAPE aspect areas and National Character Areas that fall within the 5km study area, the following 4, smaller Landscape Character Areas identified within the PCNPA Landscape Character Assessment (2011) are noted and described below and shown in Figure 14-12.

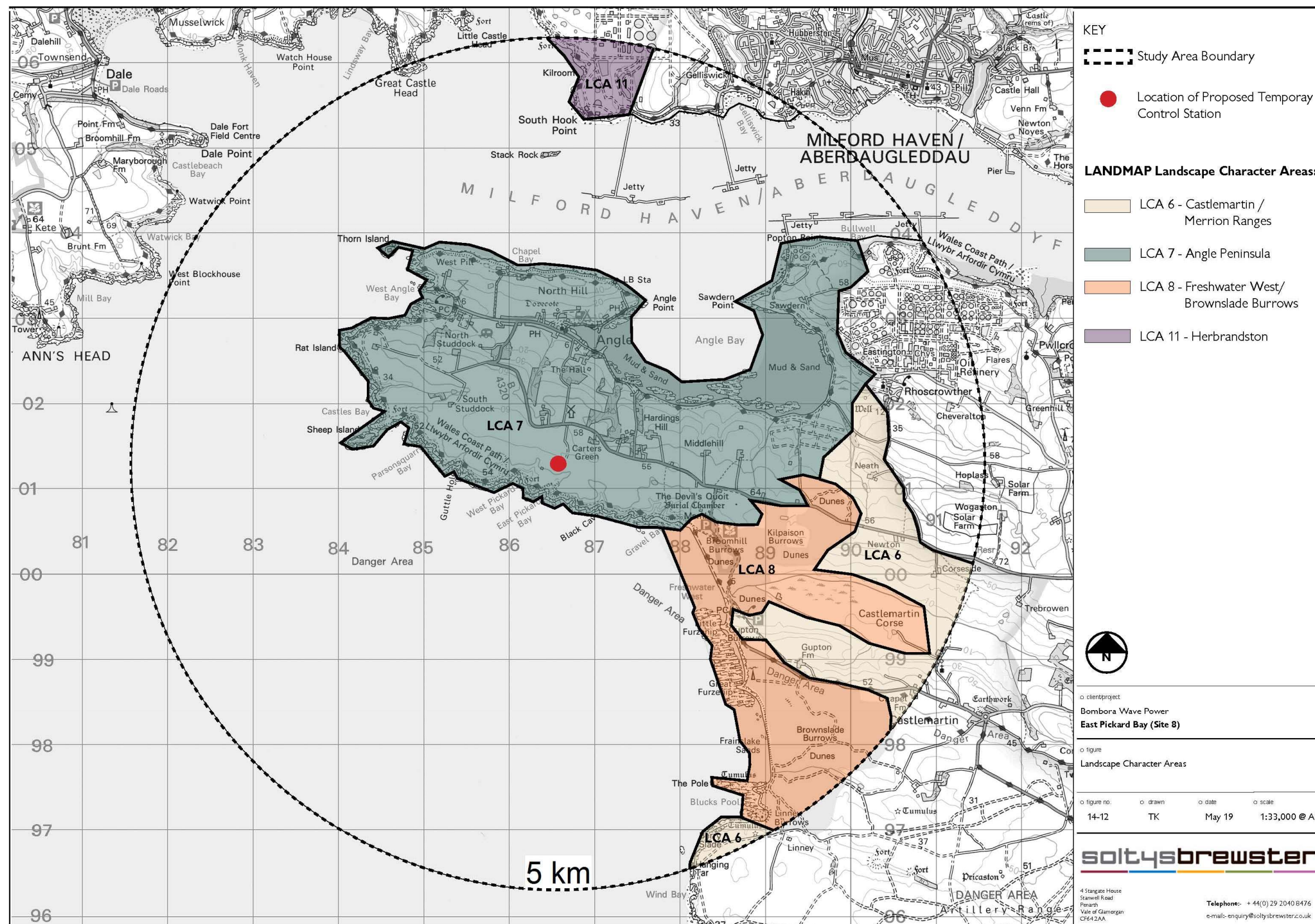


Figure 14-12: Landscape Character Areas

LCA 6 Castlemartin/Merrion Ranges

14.7.3.9 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. Only the western fringes of this LCA lie within the 5km study area.

14.7.3.10 Landscape Value: Outstanding

LCA 7 Angle Peninsula

14.7.3.11 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. The onshore features of the proposed development are located to the southern fringes of this LCA.

14.7.3.12 Landscape Value: Outstanding

LCA 8 Freshwater West/Brownslade Burrows

14.7.3.13 This LCA 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.

14.7.3.14 Landscape Value: Outstanding

LCA 11 Herbrandston

14.7.3.15 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 redevelopment. 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. Only the southern fringes of the LCA that incorporates the former Herbrandston refinery is included within the 5km study area.

14.7.3.16 Landscape Value: Moderate

14.7.4 Designated sites

14.7.4.1 Landscape/seascape designations identified for the mWave project landscape, seascape and visual assessment are described in Table 14.8 below.

Table 14-8: Designated sites and relevant qualifying interest features for the mWave project.

Designated Site	Closest Distance to mView site (m)	Relevant Qualifying Interest Feature
	Onshore Control Station within National Park boundary	
Pembrokeshire Coast National Park	Offshore elements approximately 400m from the National Park boundary	None
Milford Haven Waterway Registered Landscape of Outstanding Historic Interest in Wales.	Approximately 500m from the Onshore Control Station	None

14.7.5 Future baseline scenario

- 14.7.5.1 The (Marine Works (EIA) Regulations 2007 (as amended)) requires that *“a description of the relevant aspects of the current state of the environment (baseline scenario), and an outline of the likely evolution thereof without implementation of the project, as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge”* is included within the Environmental Statement.
- 14.7.5.2 In the event that the mWave project does not come forward, an assessment of the future baseline conditions has been carried out and is described within this section.
- 14.7.5.3 Predicting the future baseline landscape involves a degree of speculation and uncertainty, as acknowledged at paragraph 5.33 of GLVIA3. The Pembrokeshire Coast National Park Management Plan 2015 – 2019 reviewed as part of the desk-based assessment for this chapter identifies forces for change in relation to development and retaining the special qualities of the landscape, this includes consideration of renewable energy potential and capacity. It contains a section on *‘what the park might look like in 2050’* predicting improvements in sustainable design and renewable energy generation The National Landscape Character Areas (NRW 2016) (published by NRW) has also been reviewed but did not contain text relating to future issues or forces for change.

14.8 Key parameters for assessment

14.8.1 Project design parameters

- 14.8.1.1 Table 14.9 outlines a summary of the potential areas of impact from the different elements of the mWave project, including the off and onshore works during the installation, maintenance and operation and decommissioning phases of the project. These impacts are then assessed with respect to seascape and landscape character areas and visual amenity in section 14.11 and 14.12.

14.8.2 Impacts scoped out of the assessment

- 14.8.2.1 On the basis of the baseline environment and the project description outlined in Chapter 2: Project Description, a number of impacts have been scoped out of the assessment for landscape, seascape and visual assessment. These impacts are outlined, together with a justification for scoping them out, in Table 14-10.

- 14.7.5.4 The Pembrokeshire Coast National Park Authority Seascape Character Assessment December 2013 identifies forces for change in relation to natural process and climate change. For the Freshwater West beach area, this is popular for recreational activities and overtime increase in activity would put more pressure on the facilities in the area as well as the natural resources.

- 14.7.5.5 It is recognised that no landscape/seascape is static and that the landscape/seascape across the study area is under different pressures and continually changing. Further to a review of the above, in terms of landscape character, it is considered that the onshore control station site which is within the boundary of the National Park would not significantly change in the future (up to and including 2050).

14.7.6 Data limitations

- 14.7.6.1 There are no known data limitations as the time of the preparation of this SLA chapter.

Table 14-9: Project Summary

Potential impact	Project design parameter	Justification
Installation and decommissioning phases		
Impact on the scenic quality of the Pembrokeshire Coast National Park and the open views across the open water of the Celtic Sea.	Up to three vessels on site (2 multicats, (50m by 6m draught), 1 RIB) for up to three days for deployment and retrieval operations of mWave. Additional vessel trips for chain ballast (14 trips over 5 days).	The installation and decommissioning of the onshore and offshore elements mWave project will require minimal site preparation and minimal installation vehicles/vessels due to the modular nature of the components (Chapter 2 Project Description).
Impact on the intertidal area of East Pickard Bay	One vessel will be used for installation of the marine cable to MHWS for a duration of up to three days.	
Visual impact from viewpoints for receptors, including the the Pembrokeshire Coast Path.	Cable pull onshore and laying across intertidal area and onto cliff (3 days). Installation of termination box and anchor point plus laying cable to control station (6 days).	
	Installation of onshore control station - 3 lorries with HIAB delivering units to site. Some minimal ground preparation works in advance.	
Operational phase		
Impact on the scenic quality of the Pembrokeshire Coast National Park and the open views across the open water of the Celtic Sea.	mWave will sit on the seabed and as such will not be visible.	mWave will operate autonomously with minimal intervention. An allowance for some offshore operation and maintenance visits has been included in the project, as well as weekly onshore staff visits.
Impact on the intertidal area of East Pickard Bay	Up to one visit of 3 vessels per month each of 2 days 3 (tow vessel plus MIT (50m by 6m draught) and RIB)	
Visual impact from viewpoints for receptors, including the the Pembrokeshire Coast Path.	Scour protection if needed, 10 vessels over 5 days	
	Control station comprising 3 containers (20-23ft by 8ft by 8ft), chemical toilet, bunded fuel store and 3 parking spaces.	
	After initial set up, 2 vehicles to site once per week. Fuel delivered approximately once per fortnight and chemical toilet maintained as necessary.	

Table 14-10: Impacts scoped out of the assessment for landscape, seascape and visual assessment.

Potential impact	Justification
Installation phase	
Zone of Visibility Assessment	The site is contained by land form and topography for on shore views. The mWave project is very low key in scale and will not be visible from distance views.
Views from private residences	The ZTV indicates that there will be no views of the mWave project from residential properties within approximately 2km of the onshore control station.
Views from locations north of the B4320	Due to a combination of topography and high roadside hedges along the country lanes, there are no predicted views of the mWave project from locations north of the B4320.
Operational phase	
Zone of Visibility Assessment	The site is contained by land form and topography for on shore views. The mWave project is very low key in scale and will not be visible from distance views.
Views from private residences	The ZTV indicates that there will be no views of the mWave project from residential properties within approximately 2km of the onshore control station.
Views from locations north of the B4320	Due to a combination of topography and high roadside hedges along the country lanes, there are no predicted views of the mWave project from locations north of the B4320.
Decommissioning phase	
Zone of Visibility Assessment	The site is contained by land form and topography for on shore views. The mWave project is very low key in scale and will not be visible from distance views.
Views from private residences	The ZTV indicates that there will be no views of the mWave project from residential properties within approximately 2km of the onshore control station.
Views from locations north of the B4320	Due to a combination of topography and high roadside hedges along the country lanes, there are no predicted views of the mWave project from locations north of the B4320.

14.9 Impact assessment methodology

14.9.1 Introduction

14.9.1.1 The assessment of landscape and seascape effects is described by the Landscape Institute in GLVIA 3 as follows:

14.9.1.2 The assessment of landscape and seascape effects involves a combination of quantitative and qualitative assessment and the application of professional judgement within a structured assessment framework.

14.9.1.3 The term 'visual effects', as defined in paragraph 2.21 of the GLVIA3 means impacts or effects on 'specific views and on the general visual amenity experienced by people'. In accordance with GLVIA3, the assessment will focus on public views experienced by those groups of people who are likely to be most sensitive to the effects of the proposed development. These include: local communities (where views contribute to the landscape setting enjoyed by residents in the area), road users and people using recreational routes, features and attractions. The landscape, seascape and visual assessment has followed a standard approach:

- Establish baseline conditions against which the effects of the Proposed Development are assessed. This includes consideration of the future baseline as described in section 14.7.5;
- Determine the nature of the receptor likely to be affected, i.e. its sensitivity (which in turn combines judgements about its susceptibility to change arising from a specific proposal with judgements about the value attached to it);
- Predict the nature or magnitude of the effect likely to occur, which combines judgements about the likely size and scale of the change, the extent of the area over which it is likely to occur, whether the effect would be direct or indirect, reversible or irreversible, short, medium or long term in duration and whether it is positive, neutral or negative; and
- Consider how any significant visual effects identified could be reduced through design or specific mitigation measures.

14.9.1.4 The visual assessment involves a combination of quantitative and qualitative assessment and the application of professional judgement within a structured assessment framework. GLVIA3 notes:

14.9.1.5 '...whilst there is some scope for quantitative measurement of some relatively objective matters, ...much of the assessment must rely on qualitative judgement, for example what effect the introduction of a new development or land use change may have on visual amenity, or about the significance of change in the character of the landscape and whether it is positive or negative' (Paragraph 2.23) and 'In all cases there is a need for judgements that are made to be reasonable and based on clear and transparent methods so that the reasoning applied at different stages can be traced and examined by others' (Paragraph 2.24).

- 14.9.1.6 The criteria for determining the significance of effects is a two-stage process that involves defining the sensitivity of the receptors and the magnitude of the impacts. This section describes the criteria applied in this chapter to assign values to the sensitivity of receptors and the magnitude of potential impacts. The terms used to define sensitivity and magnitude is based on those which are described in further detail in Section 14.9: Impact Assessment Methodology.

14.9.2 Assessment of Effects on Seascape and Landscape Character

- 14.9.2.1 Seascape and landscape effects may include direct physical changes to seascape and landscape elements caused by the mWave project (e.g. development on the coastal edge) or indirect effects (e.g. effects on the character, quality and setting of a particular seascape or landscape) that may arise as a consequence of the installation of the mWave project. The potential seascape and landscape effects across the study area are identified by the on-site analysis and verification of seascape/landscape character information that is established during the baseline assessment. The seascape and landscape assessment criteria described below provide a framework for the assessment of seascape and landscape effects. It must be noted that there may be exceptions to these broad categories, due to specific local characteristics that may apply in individual circumstances.
- 14.9.2.2 The first stage of the assessment established the existing character, value and susceptibility of seascape and landscape receptors to change.
- 14.9.2.3 The identification of SCA and LCA enables an understanding to be formed of the inherent value and importance of separate seascape and landscape components; the processes that have created features such as field patterns, coastlines and settlement forms; and the processes that may alter seascape and the landscape character in the future.
- 14.9.2.4 The overall value and susceptibility of change of each SCA and LCA is evaluated against defined criteria as set out in tables 14-11 and 14-12 below.

Seascape and Landscape Value

- 14.9.2.5 The value attributed to the seascape and landscape is an important factor to be considered when assessing the sensitivity of a given seascape or landscape.
- 14.9.2.6 The value of each of the SCA and LCA is derived through a combination of professional judgement, field work assessment, desktop assessments, published seascape and landscape character assessments and the application of the LANDMAP landscape assessment and classification, which includes a review of all five aspect layers and. The value can then be determined by applying the criteria shown in Table 14-11.

Table 14-11: Definition of seascape and landscape value

Level of Value	Definition
Outstanding	Seascapes or landscapes, which are outstanding by nature of their scenic quality, which are aesthetically pleasing with a strong sense of place and may be rare in terms of their character type. They may be located away from centres of population, with an undeveloped character and may be difficult to access due to topography. They may also contain sites of historic, cultural, geological or natural habitat importance. These areas may be important tourist destinations and may be of national or international importance as defined by statutory designations.
High	Seascapes or landscapes with scenes of picturesque quality, which are aesthetically pleasing. They may be located near to centres of population, with some development evident though not dominant. Access may be restricted due to topography. They may also contain rare or historic features, have some notable cultural association, important geological features or contain a large proportion of high quality habitats (e.g. Site of Special Scientific Interest (SSSI). These areas may be tourist destinations e.g. Blue Flag Beach and may be of regional or county importance as defined by statutory and local authority designations.
Moderate	Seascape or landscapes with picturesque attributes, which are aesthetically pleasing. Some characteristic features remain unaffected but others are fragmented and/or spoilt. They may be close or within centres of population, with few restrictions to access. The area may have some tourist associations, though tourism is not the primary attraction. Area may contain a network of habitats (e.g. Local Nature Reserve, SACs); historic or geological features. These areas may be of local importance as defined by local authority designations.
Low	Seascapes or landscapes with limited aesthetically pleasing scenes. Few characteristics remain unaffected and may be highly fragmented or spoilt. Very little coherent character and a weak sense of place and are unlikely to be rare in terms of character type. They may be located within centres of population, with easy access. They are unlikely to contain tourist attractions, or to be of local importance as defined by local authority designations.

Susceptibility of Seascape and Landscape Receptors to Change

- 14.9.2.7 The susceptibility of landscape receptors to the type of change or development proposed is described within the Guidelines for Landscape and Visual Impact Assessment (GLVIA, 3) (The Landscape Institute and IEMA, 2013) as *“the ability of the landscape receptor (whether it be the overall character or quality/ condition of a particular landscape type or area, or an individual element and/ or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/ or the achievement of landscape planning policies and strategies”*¹.
- 14.9.2.8 The relationship between the various seascape and landscape character components assists in defining if, and how, the project may be placed in the landscape. It also allows choices to be made on informing design, which will vary according to the characteristics of the receiving seascape/landscape. The susceptibility to change of a given seascape/landscape is particular to both the specific seascape/landscape in question and the specific nature of proposed development². Susceptibility to change of the study area's component SCA and LCA is appraised within the assessment as shown in Table 14-12, using a range of factors which include:
- The nature of existing features within the seascape/landscape, including the presence of any large scale developments.
 - Seascape/Landscape pattern and scale.
 - Stability, robustness and fragility of seascape and landscape attributes and ability to be restored.
 - Visual enclosure/ the openness of views within the seascape and landscape, and visual attributes including the distribution and number of receptors, static and transitory receptors, scope for visual mitigation.
 - The condition of the seascape/landscape, including the maintenance of individual elements such as beaches, promenades, piers, hedgerows, buildings, woodland.
 - The nature of the proposed development, its component parts and character.
 - The extent to which sensitive design consideration and mitigation limit the degree of change.

¹ Landscape Institute / Institute of Environmental Management & Assessment, Guidelines for Landscape and Visual Impact Assessment, Third Edition' (2013) Page 88, paragraph 5.40

² Landscape Institute / Institute of Environmental Management & Assessment, Guidelines for Landscape and Visual Impact Assessment, Third Edition' (2013) Page 89, paragraph 5.42

Table 14-12: Susceptibility to change of seascape and landscape receptors.

Level of Value	Definition
High	A seascape/ landscape where the majority of attributes are unlikely to withstand change without causing a change to overall character to the extent that it would be difficult or impossible to restore following construction of the Project. Planning policies and/ or strategies may be in place relating to this seascape/ landscape which impose a presumption against development of the type proposed.
Moderate	A seascape/landscape with a combination of attributes that is capable of absorbing some degree of change, following construction of the Project, without affecting overall character or resulting undue consequences for the maintenance of the baseline situation.
Low	A seascape/landscape where the majority of attributes are robust and/ or tolerant of change to the extent that the Project would have little or no effect on overall character or maintenance of the baseline situation. It is likely to be easily restored. Development of the type proposed may assist in the achievement of planning policies and/or strategies relating to this seascape/landscape.

Seascape and Landscape Sensitivity

- 14.9.2.9 An assessment of sensitivity is made to determine the degree to which each SCA and LCA can accommodate or mitigate offshore development or change without unacceptable detrimental effects on its character. In this assessment 'sensitivity' is defined as the stability of character and resilience of the seascape or the landscape to withstand change and the ability to recuperate from loss or damage due to this change.
- 14.9.2.10 Combining judgements made on value and susceptibility to change enables a considered judgement to be made on the level of sensitivity to be apportioned to each defined SCA and LCA within the study area. Table 14-13 outlines the general principles that are used to inform and guide the assessment of seascape and landscape sensitivity:

Table 14-13: Sensitivity of Seascape and Landscape Character

Level of Value	Definition
High	A seascape or landscape where the majority of attributes are unlikely to withstand change without causing a change to overall character to the extent that it would be difficult or impossible to restore. The frequency and sensitivity of receptors is also likely to be high.
High - Moderate	A landscape or seascape where the majority of attributes may be able to withstand limited change without causing a change to overall character to the extent that it would be difficult or impossible to restore. The frequency and sensitivity of receptors is also likely to be high but not exclusively high

Level of Value	Definition
Moderate	A seascape or landscape with a combination of attributes that is capable of absorbing some degree of change without affecting overall character. There are unlikely to be large numbers of sensitive receptors.
Moderate - Low	A landscape or seascape where the majority of attributes may be able to withstand significant change without causing a change to overall character to the extent that it would be difficult or impossible to restore. The frequency and sensitivity of receptors is also likely to be low but not exclusively low.
Low	A seascape or landscape where the majority of attributes are robust and/ or tolerant of change to the extent that change or development would have little or no effect on overall character. It is likely to be easily restored and the frequency and sensitivity of receptors are likely to be low.

Magnitude of Effect on Seascape and Landscape

14.9.2.11 The magnitude of effect on either the seascape or landscape character is defined as the degree of change that will result from the introduction of the mWave project. It is dependent on a number of factors, including:

- The degree to which seascape or landscape character elements will be altered by the Project;
- The extent of the development visible within the seascape/landscape;
- The relationship of the development to adjoining land uses and the wider seascape/landscape context;
- Whether impacts are 'direct' or 'indirect';
- The distance of the development from a specified seascape or landscape character area; and
- Whether effects are short, medium or long term.
- Whether effects are permanent or temporary.

14.9.2.12 The nature of effect is deemed as being either short-term (less than 5 years) medium-term (5 – 10 years) or long term (10 years plus) in timescale. Table 14-14 outlines the general principles that are used to inform and guide the definition of the magnitude of landscape impacts:

Table 14-14: Magnitude of Seascape and Landscape Effects

Level of Value	Definition
High	The development would be immediately apparent and would result in major loss or major alteration to key elements of the seascape and/or landscape character to the extent that there is a fundamental and permanent, or long-term, change to seascape/landscape character. The change may occur over an extensive area.

Level of Value	Definition
Moderate	The development would be apparent in views and would result in the loss or alteration to key elements of the seascape and/or landscape character to the extent that there is a partial long-term change to seascape/landscape character. The change may occur over a limited area.
Low	The development would result in minor loss or alteration to key elements of seascape and/or landscape character to the extent that there may be some slight perception of change to seascape/landscape character. The change may be temporary and occur over a limited area.
Negligible	The development would result in such a minor loss or alteration to key elements of seascape and/or landscape character that there would be no fundamental change.

Significance of Seascape and Landscape Effects

14.9.2.13 The significance of seascape and landscape effects are dependent on the points considered within the seascape/landscape sensitivity appraisal, the factors that influence the magnitude of change upon it, and the relationship between seascape/landscape sensitivity and magnitude of seascape/landscape change.

14.9.2.14 Table 14-15 outlines the general principles that are used to inform and guide the definition of the significance of seascape/landscape effects.

Table 14-15: Significance of Seascape and Landscape Effects

Level of Value	Definition
Major	The development may have direct effects upon characteristic seascape and/or landscape features, altering elements of the seascape and/or landscape that contribute toward distinct character. The Project is likely to become a defining seascape/landscape element. Effects of this nature are likely to be contained within the character area in which the Project is located.
Moderate	The development may be a characteristic component of the seascape/landscape character, the alteration of which may influence key attributes to the extent that changes to the character of the seascape and/or landscape are easily noticeable, although the development would not become the defining seascape/landscape element. The Project may be a distinct feature within views from the seascape and/or landscape, or influential although not defining, of the seascape/landscape character. The Project may be easily noticeable but seascape and/or landscape character would remain less defined by the development than by other seascape/landscape attributes.

Level of Value	Definition
Minor	If the development could be integrated within the existing site area without the loss of essential seascape and/or landscape features which contribute to seascape/landscape character and quality.
Negligible	Where the development can be integrated into the existing seascape/landscape, without the loss of key underlying seascape and/or landscape attributes. The Project would have little, or no, effect on existing seascape/landscape character.

14.9.2.15 SCA and LCA in locations where effects are determined to have major seascape/landscape significance, are also considered to be significant under the EIA Regulations 2009 (the EIA Regulations). Conversely any RSUs, LSUs and LCAs where it is determined that seascape/landscape effects are minor or negligible, are also considered to be not significant under the EIA Regulations.

14.9.2.16 Where effects are determined to be of moderate significance, whether these effects are significant or not significant under the EIA Regulations will depend on the individual and specific mitigating circumstances available in each SCA and LCA. For example, the development may only affect a small proportion of the overall character area; however, from the area where it is visible is considered to be of higher sensitivity than that of the character area as a whole. Therefore while overall, effects may be considered moderate, due to the high sensitivity of the seascape/landscape from where the development may be visible, effects would be considered significant under EIA Regulations, as opposed to not significant from other locations within the character area, which are considered to be less sensitive.

14.9.2.17 The subjective nature of landscape is acknowledged within current guidance³. As such, categorisation of landscape effects as beneficial or adverse is difficult to achieve. It is also possible for effects to be neutral in their consequences on the landscape. An informed discussion is required in respect of the nature of effects and whether they may be considered to be beneficial, neutral or adverse. Commentary may include consideration of:

- The degree to which the proposal fits with existing character; and
- The contribution to the landscape that the development may make in its own right, usually by virtue of good design, even if it is in contrast to existing character.

14.9.3 Assessment of Effects on Visual Amenity

14.9.3.1 From each viewpoint, an assessment of the existing view and potential changes that will result from the mWave project has been completed in the field. The effect of the mWave project on the existing view has been assessed using the criteria described in paragraph 14.9.3 The following elements are considered in the description and assessment of visual effects from each viewpoint:

- The existing visual character and quality of the viewpoint (including whether it is within a designated landscape, the presence of visual detractors, etc);
- The character of the existing seascape/landscape against which the Project would be viewed including any screening provided by existing surface features, built form, vegetation and local topography;
- The viewpoint location, the presence and concentration of receptors, and receptor sensitivity (for example, will people view the development area during work or leisure activities, whilst in transit, etc.);
- The proportion of the development that will be visible, its scale, distance from the viewpoint and position in the view in relation to other features within the view including adjacent land uses and pattern of land cover;
- The duration of the potential effect, i.e. is it long term or temporary, continuous or transitory (the latter meaning that the receptor would be exposed to the effect for a short time); and
- Whether effects will occur during installation, operational or decommissioning phase of the development.

Evaluation of Visual Sensitivity

14.9.3.2 The sensitivity of visual receptors is dependent on susceptibility to change of the person or group of people likely to be affected, and the value attached to particular views⁴.

Susceptibility of Visual Receptors to Change

14.9.3.3 The susceptibility of different visual receptors to changes in views relates to their occupation or activity whilst experiencing the view, and the resultant extent to which their attention or interest may therefore be focussed on the views and the visual amenity experienced⁵.

³ Landscape Institute / Institute of Environmental Management & Assessment, Guidelines for Landscape and Visual Impact Assessment, Third Edition' (2013) Page 88, paragraph 5.37

⁴ Landscape Institute / Institute of Environmental Management & Assessment, Guidelines for Landscape and Visual Impact Assessment, Third Edition' (2013) Page 113, paragraph 6.31

⁵ Landscape Institute / Institute of Environmental Management & Assessment, Guidelines for Landscape and Visual Impact Assessment, Third Edition' (2013) Page 113, paragraph 6.32

Table 14-16: Susceptibility to Change of Visual Receptors

Level of Value	Definition
High	May typically include residents of properties, including private houses, caravans, B&Bs, guest houses and hotels where the main view is orientated towards the development, or people undertaking recreation where the seascape or landscape within which the development is seen as the primary reason for attraction or reason for visit (e.g. tourists, walkers and hikers on recognised footpaths, open access land, rights of way and promenades, scenic route users, yachts and inshore recreational boat users). Receptors are more likely to be within a designated landscape and could be attracted to visit more frequently, or stay for longer, by virtue of the view.
Moderate	May typically include outdoor workers (e.g. fishermen, farmers, dock workers) and people undertaking recreational pursuits where the seascape/landscape within which the development is seen is not the primary reason for attraction (e.g. golf, water based sports, historic sites). May also include residents of properties where the proposed development would form an ancillary view. Receptors are less likely to be within a designated landscape and could be attracted to visit more frequently or stay for longer by virtue of the facilities and features of the particular attraction rather than by the value of the view.
Low	May typically include people travelling through the seascape/landscape by car, train, bus, ferry etc; people in community facilities, industrial/office/shop workers, Receptors are unlikely to be within a designated landscape and are most likely to be present at a given viewpoint by virtue of some other need or necessity unrelated to the appreciation of the seascape/landscape or visual value.

Value attached to views

14.9.3.4 In determining visual sensitivity, professional judgement takes into account the value attached to the view. Considerations are likely to include the recognition attributes to particular views, for example in relation to heritage assets or through planning designations. Further indicators may include an appearance on tourist maps, provision of facilities for enjoyment such as parking places, sign boards and interpretive materials. Where relevant, these considerations are taken into account when making professional judgements regarding the sensitivity of visual receptors.

Sensitivity of Visual Receptors

14.9.3.5 The sensitivity of visual receptors is dependent on the susceptibility of the receptor to change and the value of the view, including other seascape/landscape elements within it. Table 14-17 outlines the general principles that are used to inform and guide the assessment of visual sensitivity at each viewpoint

Table 14-17: Sensitivity of Visual Receptors

Level of Value	Definition
High	Receptors highly responsive to new visual elements of the type proposed, by virtue of their location, nature and/or existing visual qualities and elements. Receptors will be highly susceptible to change and considered to be at a location of high value.
High - Moderate	Receptors responsive, but able to accommodate a small degree of new visual elements of the type proposed, by virtue of their location, nature and/or existing visual qualities and elements. Receptors may be highly susceptible to change and considered to be at a location of high value but not exclusively so.
Moderate	May typically include people travelling through the seascape/landscape by car, train, bus, ferry etc; people in community facilities, industrial/office/shop workers, Receptors are unlikely to be within a designated landscape and are most likely to be present at a given viewpoint by virtue of some other need or necessity unrelated to the appreciation of the seascape/landscape or visual value.
Moderate - Low	Receptors who are able to accommodate some new visual elements of the type proposed, by virtue of their location, nature and/or existing visual qualities and elements. Receptors may be susceptible to change, although less likely to be at a location of recognised value.
Low	Receptors where new visual elements of the type proposed may be readily accommodated, by virtue of location, nature and/or existing visual qualities and elements. Receptors are not likely to be highly susceptible to change or at a location of recognised value.

Magnitude of Visual Effects

14.9.3.6 The magnitude of effect on visual amenity is defined as the degree of change that will result from the introduction of the development into the land/seascape. It is dependent on a number of factors, including:

- Distance between the development and the receptor;
- Prominence of the development in views;
- Extent visible;
- Proportion of the field of view occupied by the development ;
- Other development and built structures within the view;
- The backdrop to the development in the view;
- Nature of the foreground in the view;
- Presence of existing retained features in the view; and
- Whether effects are short, medium or long term.
- Whether effects are permanent or temporary.

14.9.3.7 Magnitude of effect on visual amenity (i.e. views and visual appreciation and enjoyment of the landscape) is categorised as high, medium, low and negligible and is defined in Table 14-18.

Table 14-18: Magnitude of Visual Effects

Level of Value	Definition
High	The development would be an immediately apparent feature that would affect and change the overall appearance of the view and to which other features would become subordinate. The Project is likely to be visually dominant.
Moderate	The development would form a recognisable new element within the overall view and would be readily observed without changing the overall nature of the view. Overall quality of the view may remain intact. The Project is likely to be visually prominent.
Low	The development would form a component of the wider view that might be missed by the casual observer. Awareness of the Project would not have a marked effect on the overall quality of the view. The Project is likely to be visible.
Negligible	The development would be barely perceptible, or imperceptible, and would have no marked effect on the overall quality of the view.

Significance of Visual Effects

14.9.3.8 The significance of visual effects is dependent on the points considered within the appraisal of sensitive receptors, the factors that influence the magnitude of visual change, and the relationship between visual sensitivity and magnitude of visual change. Viewpoint assessment included an analysis of viewpoints, illustrating the nature of available views towards the development from locations within the study area. The significance of effect from these locations has been measured against the criteria detailed in Table 14-19 below.

Table 14-19: Significance of Visual Effects

Level of Value	Definition
High	The Project would affect existing views to the extent that the existing defining visual elements will become subservient within the view. The Project may be seen as conflicting with existing visual character; however, existing characteristic elements may be retained as reference points within the view. The degree which existing elements such as skylines, woodland blocks, built form, topography and other structural seascape and landscape features are retained will be considered in determining significance.
Moderate	The Project would result in alteration to seascape and/or landscape features which contribute to the existing visual character or quality, but the overall integrity of the seascape/landscape is maintained. The Project may be suitably absorbed or accommodated within the view alongside existing visual elements, without degrading the integrity of existing visual qualities.
Minor	The Project would be visually integrated within the existing seascape/landscape without the loss of essential seascape and/or landscape features which contribute to seascape/landscape character and quality.

Level of Value	Definition
Negligible	The Project would be integrated into the existing seascape/landscape without having a material effect upon the distinctive and valued characteristics of the existing view.

14.9.3.9 Viewpoint locations from where effects are determined to have major visual significance are considered to be significant under the EIA Regulations. Conversely any locations where it is determined that visual effects have no visual significance, are considered, similarly, to be not significant under the EIA Regulations.

14.9.3.10 Where effects are determined to be of moderate visual significance, whether these effects are significant or not significant under EIA Regulations would depend on the individual and specific mitigating circumstances relating to each viewpoint. For example, effects from a viewpoint may be considered to be of moderate visual significance. However, the broad nature of the view in which the Project would be seen may reduce these effects to an extent where effects would still be considered to be moderate, though not considered to be significant under EIA Regulations.

14.9.3.11 The subjective nature of visual effects assessment is acknowledged within current guidance⁶. As such, categorisation of visual effects as beneficial or adverse (or in some cases neutral) is difficult to achieve. An informed discussion is provided on the nature of effects and whether they may be considered to be beneficial, neutral or adverse. Commentary may include consideration of:

- The nature of existing visual elements and qualities;
- The degree to which the proposal fits with existing visual elements; and
- The contribution to the view that the development may make in its own right, usually by virtue of good design, even if it is in contrast to existing visual qualities.

⁶ Landscape Institute / Institute of Environmental Management & Assessment, Guidelines for Landscape and Visual Impact Assessment, Third Edition' (2013) Page 88, paragraph 5.37

14.10 Measures adopted as part of the mWave Project

- 14.10.1.1 The onshore control station site is located away from residential receptors and distant from the main recreational focus point of Freshwater West Beach.
- 14.10.1.2 The onshore control station has been carefully located within the site to utilise existing earth bunds and vegetation in order to minimise the effects on landscape character and visual amenity, particularly from sensitive locations along the Wales Coast Path and from residential receptors to the north of the site (see Chapter 2 Project Description).
- 14.10.1.3 The cable route will, where possible, follow existing line features such as stonewall and field boundaries.
- 14.10.1.4 mWave will sit on the seabed and as such will not be visible during the operation phase.

14.11 Assessment of significance on Seascape and Landscape Character

14.11.1 Introduction

- 14.11.1.1 The significance of effects on landscape and seascape character as a result of the mWave project has been assessed against the significance criteria defined in section 14.9.2 Effects. During all phases of the project, effects are considered to be short term and temporary in duration.

14.11.2 Installation and deployment, and decommissioning phase

- 14.11.2.1 Effects on seascape character during installation or decommissioning will be predominantly restricted to SCA 34 – Freshwater West. Here the use and movement of vessels used to deploy the mWave device and to lay the cable below the MLWS will be a notable feature within this part of the sea. Vessels however not an uncharacteristic feature within this SCA as many ships and boats already pass through this SCA. Each activity will be a limited number of days and therefore short in duration and temporary.
- 14.11.2.2 From others SCA within the northern parts of the study area, which include SCA 31 – Outer Milford Haven and SCA 32 - Inner Milford Haven, it is predicted that there will be no effects on seascape character as any activities associated with the installation, deployment and decommissioning phase of the project will be screened by local topography. From SCA 29 – Southern Inshore Waters and SCA 35 – Castlemartin Coastal Waters there may be some minor effects on seascape character as the movement of vessels will be noticeable including the installation of the cable. However as within LCA 34 – Freshwater West, movement of ships and boats are a common feature.
- 14.11.2.3 The magnitude of effects on landscape for this part of the works is predicted to be low.

- 14.11.2.4 Overall effects on seascape character during this phase of the project is predicted to be minor and not significant under the EIA Regulations as any activities will affect only a very small proportion of the overall study area and be short term and temporary in duration.
- 14.11.2.5 The effects on landscape character during the installation, deployment and decommissioning phases of the project will short and temporary in duration and will be limited to LCA 7 – Angle Peninsula.
- 14.11.2.6 Direct effects will be restricted to within the immediate environs of the proposed onshore control station and therefore limited to only a very small proportion of the total land area within the LCA. Within the site boundary there will be a slight change in character as the movement of site equipment and vehicles used to install the control station will be a recognisable installation activity within an otherwise tranquil and rural landscape, albeit, punctuated by agricultural practices.
- 14.11.2.7 The laying of the cable between the termination box and the control station will require the use of a 4WD and therefore it is anticipated that any effects will be no greater than the usual agricultural activities that are currently experienced, such as the movement of tractors within the site and surrounding landscape.
- 14.11.2.8 There may be a minor effect on landscape character as a result of laying the cable within the gully. Currently the gully has no man-made features and the installation work to secure the plastic conduit and the rollers to the rock face will be a noticeable activity especially from the Wales Coast Path. Effects will be direct, but short term and temporary in nature.
- 14.11.2.9 The magnitude of effects on landscape character for this part of the works is predicted to be low.
- 14.11.2.10 Overall effects on landscape character during this phase of the project is predicted to be minor and not significant under the EIA Regulations as any activities will affect only a very small proportion of the overall study area and be short term and temporary in duration.

14.11.3 Operational and maintenance phase

SCA 29 – Southern Inshore Waters

- 14.11.3.1 Susceptibility of Seascape Receptors to Change: Low
- 14.11.3.2 The open sea, which consists of unspoilt, simple consistent and unified marine character at a vast scale and significant sense of openness and remoteness. The cliffs and adjacent landform would be apparent as strong elements dominating the view to the west at points decreasing to small elements or a thin line on the horizon only visible in good visibility to the south. The area has a sense of tranquillity and wilderness, although this reduced by frequent views of ferries, commercial vessels and leisure craft.
- 14.11.3.3 Seascape Sensitivity: Moderate – Low.
- 14.11.3.4 Seascape value is considered to be moderate and susceptibility of seascape receptors to change is low. Therefore, on balance, seascape sensitivity is considered to be moderate - low.

14.11.3.5 Magnitude of Seascape Effects: Negligible

14.11.3.6 Effects of the mWave project will be indirect and temporary from this SCA. Due to distance and the small-scale nature of the onshore elements of the mWave project, views of the onshore control station is predicted to be indiscernible from this SCA. Any vessels during the operational phase will be seen in conjunction with other vessels and therefore they will not be an uncharacteristic element within the seascape. It is therefore predicted that the existing seascape elements that define this SCA will remain intact.

14.11.3.7 Significance of Seascape Effects: Negligible

14.11.3.8 The seascape is considered moderate – low sensitivity and the magnitude of effects negligible. The mWave project will constitute a very minor component in the seascape when viewed from this SCA and is not predicted to become a defining feature of the character within this SCA.

14.11.3.9 On balance, it is considered that effects on seascape character will be negligible and not significant under the EIA Regulations. Effects are considered to be neutral, as, following the installation of the mWave project, there will be no material change to the existing seascape character.

SCA 31 – Outer Milford Haven

14.11.3.10 Susceptibility of Seascape Receptors to Change: Low

14.11.3.11 Views from within the majority of this SCA of both the onshore elements and the maintenance vessels will be predominantly screened from view by the topography of the Angle Peninsula. Any views will be limited to the far eastern fringes of the SCA and the open waters off Sheep Island. This part of the SCA is characterised by the open and exposed sea corridor that forms the mouth of the Haven. Commercial shipping is a frequent receptor within this SCA (Chapter 12 Shipping and Navigation).

14.11.3.12 Seascape Sensitivity: Moderate

14.11.3.13 Seascape value is considered to be high and susceptibility of seascape receptors to change is low. Therefore, on balance, seascape sensitivity is considered to be moderate.

14.11.3.14 Magnitude of Seascape Effects: Negligible

14.11.3.15 Effects of the mWave project will be indirect and temporary from this SCA. Due to a combination of the small scale nature of the development, distance and the limited areas from which the onshore elements of the mWave project will be viewed from and the presence of vessels as an existing seascape feature, it is predicted that the development would result in such minor changes to the seascape that there would be no fundamental change to its character.

14.11.3.16 Significance of Seascape Effects: Negligible

14.11.3.17 The seascape is considered moderate sensitivity and the magnitude of effects negligible. The mWave project will constitute a very minor component in the seascape when viewed from this SCA and is predicted to have little or no effect on the existing seascape character.

14.11.3.18 On balance, it is considered that effects on seascape character will be negligible and not significant under the EIA Regulations. Effects are considered to be neutral, as, following the installation of the mWave project, there will be no material change to the existing seascape character.

SCA 32 – Inner Milford Haven

14.11.3.19 The ZTV indicates that there will be no visibility of the mWave project from within this SCA due to the screening effects of topography and therefore has been excluded from further assessment as there will be no effects on seascape character.

SCA 34 – Freshwater West

14.11.3.20 Susceptibility of Seascape Receptors to Change: High

14.11.3.21 An exposed south and west facing SCA that includes the wide sweeping bay of Freshwater West, with the contrasting, jagged, angular cliffs to the northern edge of the character area. The boundary of the SCA encompasses land to the south of the B4320, including the onshore and inter tidal elements of the mWave project. There is a sense of remoteness and tranquillity in the seascape/landscape that is marred by occasional noises from the firing ranges, with its accompanying sense of threat, and road traffic and visitor access.

14.11.3.22 Seascape Sensitivity: High - Moderate

14.11.3.23 Seascape value is considered to be outstanding and susceptibility of seascape receptors to change is high - moderate. Therefore, on balance, seascape sensitivity is considered to be high - moderate.

14.11.3.24 Magnitude of Seascape Effects: Low

14.11.3.25 Effects on seascape character will be direct within this SCA, including onshore and intertidal elements of the mWave project. Vessels undertaking maintenance operations will be not be out of character due to the existing presence of shipping and pleasure boat activity within the SCA. The intertidal and rock face is free of manmade features so the introduction of the cable to the onshore control station will result in a small change in character, although this will be restricted to the immediate vicinity of the cable route and therefore to a very small proportion of the overall SCA. There will also be a slight change in character within the field that the control station is located, however as per the cable route, any change will be limited to a very small proportion of the SCA and will be temporary in duration.

14.11.3.26 Significance of Seascape Effects: Minor

14.11.3.27 The seascape is considered high - moderate sensitivity and the magnitude of effects low. Although any effects within this SCA will be direct, they will affect only a very small proportion of it and any maintenance operations will not be out of character to activities that currently occur.

14.11.3.28 On balance, it is considered that effects on seascape character will be minor and not significant under the EIA Regulations. Effects are considered to be neutral, as, following the installation of the mWave project, there will be no material change to the existing seascape character.

SCA 35 – Castlemartin and Coastal Waters

14.11.3.29 Susceptibility of Seascape Receptors to Change: Moderate

14.11.3.30 A remote, wild and exposed coastline with spectacular indented cliffs with numerous features such as arches stack and caves. The onshore section of this SCA is within the MOD firing range and therefore receptors will be limited and predominantly restricted to offshore locations. There are few manmade elements within this SCA, although commercial shipping/ ferries entering and exiting Milford Haven, plus occasional noise from the MOD firing range disrupt the otherwise tranquillity of the SCA.

14.11.3.31 Seascape Sensitivity: High - Moderate

14.11.3.32 Seascape value is considered to be high and susceptibility of seascape receptors to change is moderate. Therefore, on balance, seascape sensitivity is considered to be high - moderate.

14.11.3.33 Magnitude of Seascape Effects: Low

14.11.3.34 Any effects on seascape character will be indirect and temporary. The onshore elements of the mWave project will be viewed at a distance of approximately 2.5km and due to the small scale of the onshore control station it will not result in any changes to the existing character. Vessels undertaking maintenance work will be a noticeable feature, but due to the existing presence of ships/ferries they will not be an additional or unusual feature of the seascape.

14.11.3.35 Significance of Seascape Effects: Minor

14.11.3.36 The seascape is considered high - moderate sensitivity and the magnitude of effects low. Effects on seascape character will be indirect and could be integrated in to the existing character without the loss of existing features that currently define it.

14.11.3.37 On balance, it is considered that effects on seascape character will be minor and not significant under the EIA Regulations. Effects are considered to be neutral, as, following the installation of the mWave project, there will be no material change to the existing seascape character.

LCA 6 – Castlemartin/Merrion Ranges

14.11.3.38 Susceptibility of Landscape Receptors to Change: Low

14.11.3.39 The ZTV indicates that visibility of the onshore control station will be limited to a very small proportion of land adjacent to Berry Slade and at a distance of approximately 4.5km. This part of the LCA is within a MOD firing range and therefore receptors will be limited in numbers due to restricted accessibility. These restrictions area likely to assist in retaining a sense of tranquillity and limits the number of manmade features that are currently within the LCA.

14.11.3.40 Landscape Sensitivity: Moderate

14.11.3.41 Landscape value is considered to be outstanding and susceptibility of landscape receptors to change is low. Therefore, on balance, landscape sensitivity is considered to be moderate.

14.11.3.42 Magnitude of Landscape Effects: Negligible

14.11.3.43 Effects of the mWave project will be indirect and temporary from this LCA. Views of the onshore control station and any movement of vessels during the operational and maintenance phase of the project will be limited to a very small proportion of land within the LCA due to the screening effects of topography. Any views will at a distance of over 4km, across a large expanse of water and set against the landform of the Angle Peninsula. It is therefore predicted that the existing landscape elements that define this LCA will remain intact.

14.11.3.44 Significance of Landscape Effects: Minor

14.11.3.45 The landscape is considered moderate sensitivity and the magnitude of effects negligible. The mWave project will constitute a minor component in the seascape/landscape when viewed from this LCA. It will potentially affect only a very small proportion of the LCA and be viewed from over a distance of over 4km, it is therefore not predicted to become a defining feature of the character within this LCA.

14.11.3.46 On balance, it is considered that effects on landscape character will be minor and not significant under the EIA Regulations. Effects are considered to be neutral, as, following the installation of the mWave project, there will be no material change to the existing landscape character.

LCA 7 – Angle Peninsula

14.11.3.47 Susceptibility of Landscape Receptors to Change: Moderate

14.11.3.48 Due to topography and the hedgerows that typically enclose the agricultural fields that characterise this LCA, views of the mWave project are limited to locations south of the B4320 and within areas surrounding the site. Although this is a rural landscape, which is generally in good condition, it is partly influenced by industrial activity, with views to the nearby Texaco and Rhoscrowther oil refineries, located in neighbouring LCAs. Receptors are likely to be transitory, typically walkers along the Wales Coast Path.

14.11.3.49 Landscape Sensitivity: High - Moderate

14.11.3.50 Landscape value is considered to be outstanding and susceptibility of landscape receptors to change is moderate. Therefore, on balance, landscape sensitivity is considered to be high - moderate.

14.11.3.51 Magnitude of Landscape Effects: Low

14.11.3.52 Within the site boundary, where effects of the onshore elements of the mWave project will be direct, there may be a slight perception of change to the character of the landscape, as most notably the onshore control station will increase the perception of manmade influences within this part of the LCA. Any effects however, will be limited to a very small proportion of the total land within the LCA and will be temporary in duration. From the majority of the LCA there will be no perceptible change in landscape character following the introduction of the mWave project.

14.11.3.53 Significance of Landscape Effects: Moderate

14.11.3.54 The landscape is considered high - moderate sensitivity and the magnitude of effects low. The onshore control station may be a characteristic component within the immediate environs of the site, although it is not predicted to be the defining element within the wider landscape. The components that define the current character of the LCA are predicted to remain intact.

14.11.3.55 On balance, it is considered that effects on landscape character will be moderate and not significant under the EIA Regulations. Effects are considered to be neutral, as, following the installation of the mWave project, there will be no material change to the existing landscape character.

LCA 8 – Freshwater West/Brownsdale Burrows

14.11.3.56 Susceptibility of Landscape Receptors to Change: Moderate

14.11.3.57 The landscape within this LCA is predominantly a simple landscape consisting of inland dune system and the sweeping beach of Freshwater West. The LCA has a sense of tranquillity and as a strong association with the sea. There may be a high number of sensitive receptors, especially on the beach who may stay for a period of time due to the character of the landscape and seascape. Topography within this LCA and the LCA in which the onshore elements of the mWave project are located, limit views of the project to the northern and southern fringes of Brownsdale Burrows and therefore a very small proportion of the total land within the LCA. There may be views of the movement of vessels from where views of the sea are available, however this will not be an uncharacteristic component of views from this LCA.

14.11.3.58 Landscape Sensitivity: High - Moderate

14.11.3.59 Landscape value is considered to be outstanding and susceptibility of landscape receptors to change is moderate. Therefore, on balance, landscape sensitivity is considered to be high - moderate.

14.11.3.60 Magnitude of Landscape Effects: Negligible

14.11.3.61 Effects of the mWave project will be indirect and temporary from this LCA. Views of the onshore control station will be limited to a very small proportion of land within the LCA due to the screening effects of topography. Movement of vessels during the operational and maintenance phase of the project may be possible from a wider area, although this will not be an uncharacteristic feature or component of views from this LCA. It is therefore predicted that the existing landscape elements that define this LCA will remain intact.

14.11.3.62 Significance of Landscape Effects: Minor

14.11.3.63 The landscape is considered high - moderate sensitivity and the magnitude of effects negligible. The mWave project will constitute a minor component in the seascape/landscape when viewed from this LCA. It will potentially affect only a very small proportion of land and therefore not predicted to become a defining feature of the character within this LCA.

14.11.3.64 On balance, it is considered that effects on landscape character will be minor and not significant under the EIA Regulations. Effects are considered to be neutral, as, following the installation of the mWave project, there will be no material change to the existing landscape character.

LCA 11 – Herbrandston

14.11.3.65 The ZTV indicates that there will be no visibility of the mWave project from within this LCA due to the screening effects of topography and therefore has been excluded from further assessment as there will be no effects on landscape character.

14.12 Assessment of significance on Visual Amenity

14.12.1.1 The significance of effects on visual amenity as a result of the mWave project has been assessed against the significance criteria defined in section 14.9.3. Effects during all phases of the project, effects are considered to be short term and temporary in duration.

14.12.2 Installation and deployment, and decommissioning phase

14.12.2.1 The impacts of the installation and deployment, and decommissioning phases of the mWave project will be limited to short term changes in the visual baseline. Receptors that will experience this phase of the works are considered to be of high sensitivity, as they are located within a National Park and are attracted to the area for its scenic beauty.

14.12.2.2 The deployment of the mWave device will take approximately 3 days to complete and during this time the main effects on visual amenity will be the two multicat vessels that will be used to tow the device to the site and deploy the device on to the sea bed. Additional single vessels trips will be made to bring ballast to the site.

- 14.12.2.3 A marine cable approximately 1.8km in length, connecting from the mWave device to the onshore control station will be required to be laid. The subtidal section of the cable will be laid using one cable laying vessel. This part of the installation is expected to take up to 3 days. The vessels used to deploy the mWave device and also the marine cable will be viewed in open water, where vessels of the size and number are a common feature of existing views. Therefore, the magnitude of effects on visual effects for this part of the installation works is predicted to be low.
- 14.12.2.4 For the intertidal section of the cable to the termination box and anchor point, the cable will be pulled onshore from the offshore cable laying vessel. Two main methods are currently being considered.
- 14.12.2.5 Method A would use a JCB, or similar, positioned at an appropriate location (potentially within an agricultural field at approximately 55m AOD and in all cases above MHWS). For Method B a self-propelled mobile winch and anchoring system would be manually carried down to an identified pull point above East Pickard Bay gully (above MHWS).
- 14.12.2.6 The subtidal section of the marine cable will take up to 3 days to install, with the intertidal section to the top of the cliffs being a further 3 days. This period may be extended to take account of weather down-time and other potential delays.
- 14.12.2.7 In order to lay the cable between the termination box and the control station, a roll of cable will be brought to site on a trailer using a 4WD vehicle. The vehicle will position itself within agricultural fields as close to the gully as possible. One end of the cable will then be pulled off the drum down to the termination box. Once secured, the 4WD vehicle will work its way back up the agricultural fields to the control station allowing the cable to be laid along the required field boundaries.
- 14.12.2.8 It is predicted that the main effects on visual amenity associated with the onshore works to connect the marine cable will be associated with works to the upper sections of the gully and laying the cable across the agricultural fields, as any work will be visible from sections of the Wales Coast Path where it runs within close proximity of the site. Views of any activities within the intertidal areas and lower sections of the gully are predicted to be screened by topography from onshore locations. Overall, the magnitude of effects on visual effects for this part of the installation works is predicted to be moderate.
- 14.12.2.9 The main visual effects during the installation of the temporary control station are likely to be the minor works required to improve visibility at the entrance of the site on the B4320. Vehicle movement and operations to lift the containers in to location may also be a notable feature of close-range views, but any effects will be very short in duration. The magnitude of effects on visual effects for this part of the installation works is predicted to be moderate.

- 14.12.2.10 Overall effect on visual amenity from VP2 – Wales Coast Path during this phase of the project is predicted to be moderate and adverse under the EIA Regulations as the works will be a noticeable feature within the landscape, especially from close distance locations. Effects on visual amenity from VP1 – Hill Fort, South West of the Site are predicted to be minor and neutral, and from VP3 – War Memorial, B4319 effects are predicted to be negligible and neutral, as due to a combination of distance and/or topography screening views, installation/decommissioning activities will not form a prominent feature of views. All works during this phase of the project will be temporary and very short in duration.

14.12.3 Operational and maintenance phase

- 14.12.3.1 Illustrative photograph from the selected viewpoints have been used to aid this assessment and are provided in Figures 14-13A – 14-15C.

Viewpoint 1: Hill Fort south west of the Site

- 14.12.3.2 Landscape/Seascape Character Area & Designations: LCA 7 – Angle Peninsula and SCA 34 – Freshwater West. Located within Pembrokeshire Coast National Park.
- 14.12.3.3 Susceptibility to Change of Visual Receptors: High
- 14.12.3.4 Walkers who are within the Pembrokeshire Coast National Park and on the Wales Coast Path. Views out across the adjacent open water of the Celtic Sea are predicted to be the primary reason for visits to this location.
- 14.12.3.5 Sensitivity of Visual Receptors: High
- 14.12.3.6 There are no information boards relating to the fort; however, it is marked on OS maps and views across the Celtic Sea are a key feature of this viewpoint.
- 14.12.3.7 Existing View: Located approximately 0.40km west of the proposed onshore control station, where views inland are dominated by agricultural fields of semi-improved grassland that are used for pasture. Fields are typically enclosed by a mix of low, gappy hedges and post and wire fences. A narrow, steep sided gully that extends to West Pickard Bay, containing scrubby vegetation is visible within the foreground. More distant views, north and east towards the site are partially screened by earth banks, a number of which contain scrubby vegetation along the top of them. Within far distant views to the north east, the tall chimney flues to Rhoscrowther Oil Refinery are clearly visible. To the west, views are contained by landform and the rocky coastline. Views east are more open and there are good long-distance views towards the beaches of Freshwater West and Brownland Burrows. To the south there are open views across the wide expanse of the waters of the Celtic Sea.
- 14.12.3.8 From this location it is predicted that the earth bund that extends along the southern boundary to the field adjacent to the control station will fully screen views of the access road and also the car parking bays and partially screen views of the containers. Views are likely to be restricted to the upper sections of the containers only and also the antennas. It is predicted that the marine cable that links the mWave device to the control station will be screened from view by landform.

14.12.3.9 When looking south across to the offshore site where the mWave device is located, the movement of vessels associated with the inspection and maintenance of the device will be possible as will a navigational marker buoy, if required.

14.12.3.10 Magnitude of Visual Effects: Low.

14.12.3.11 Due to the screening effects of the earth bund, the control station is predicted to form a minor component of the view that may be missed by the casual observer and will occupy only a very small proportion of the overall view from this location. Key views out across the adjacent Celtic Sea and views towards Freshwater West and Brownland Burrows will be unaffected and remain the key defining features of this view.

14.12.3.12 The movement of the intermittent operation and maintenance vessels will be evident; however, they will be viewed in conjunction with other vessels that currently use this area of the sea and therefore will not be an unusual feature of views.

14.12.3.13 Significance of Visual Effects: Minor

14.12.3.14 Receptors are considered to be of high sensitivity and the magnitude of effects low. The control station would be an additional feature of the views to the north east, however, the small proportion of the containers that are predicted to be visible and in conjunction with the scale of the landscape/seascape, it will be integrated within the landscape without the loss of the existing features that currently define it. Views across the open water will remain as the dominant feature of views.

14.12.3.15 On balance, it is considered that effects on visual amenity will be minor and not significant under the EIA Regulations. Effects are considered to be neutral, as the development will be incorporated into the view without changing its overall nature.

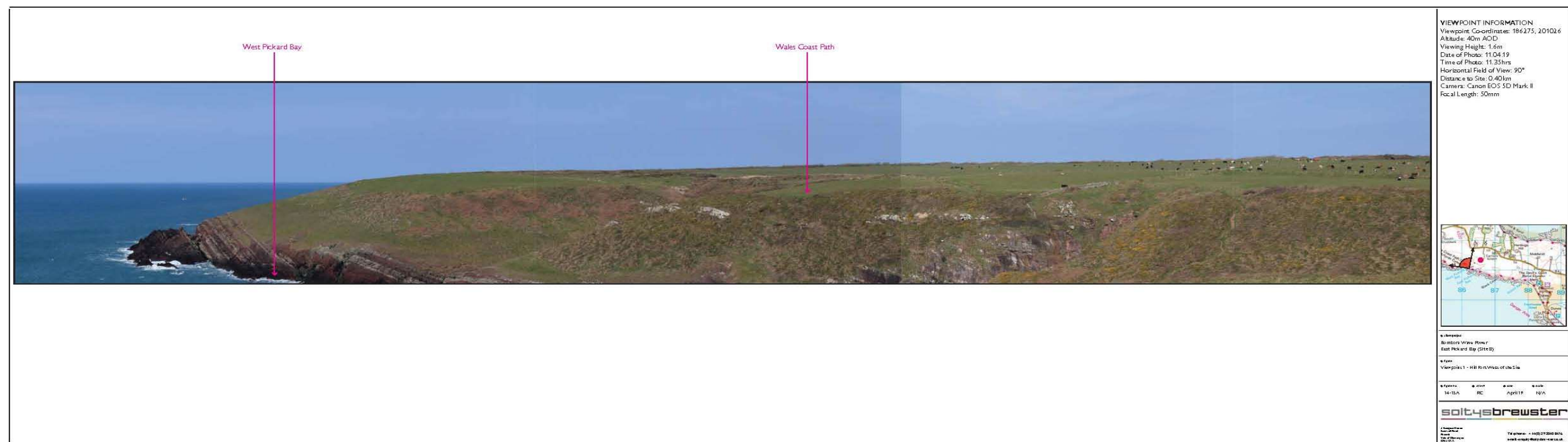


Figure 14-13A: Viewpoint 1: Hill Fort south west of the Site (looking north west)



Figure 14-13B: Viewpoint 1: Hill Fort south west of the Site (looking north east)

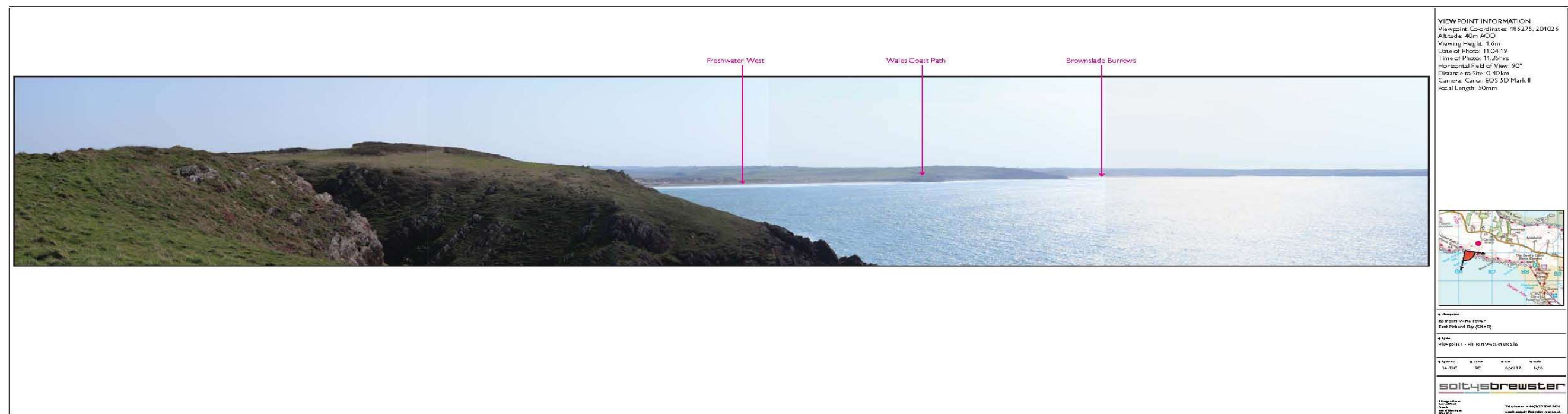


Figure 14-13C: Viewpoint 1: Hill Fort south west of the Site (looking south east)

Viewpoint 2: Wales Coast Path

- 14.12.3.16 Landscape/Seascape Character Area & Designations: LCA 7 – Angle Peninsula and SCA 34 – Freshwater West. Located within Pembrokeshire Coast National Park.
- 14.12.3.17 Susceptibility to Change of Visual Receptors: High
- 14.12.3.18 For walkers who are within the Pembrokeshire Coast National Park and on the Wales Coast Path, the views out across the adjacent open water of the Celtic Sea are predicted to be the primary reason for visits to this location.
- 14.12.3.19 Sensitivity of Visual Receptors: High
- 14.12.3.20 Receptors are within a National Park and located on a recognised national walking trail.
- 14.12.3.21 Existing View: From this location, situated approximately 0.27km south of the proposed control centre, foreground views to the north are dominated by the steep sided slopes of the inlet that extends to East Pickard Bay. These slopes are typically vegetated with rough grass and scrub and visually contrast with the adjacent semi-improved grassland that is used for pasture. The fields are typically enclosed by a mix of low gappy hedgerows, post and wire fences and earth banks. Views west are across the coastal edge and farmland, along which the Wales Coast Paths runs. To the east, views are constrained by local topography. To the south there are views across the steep sided gully the leads to East Pickard Bay, beyond which are more open views across the wide expanse of the Celtic Sea.
- 14.12.3.22 Predicted View: From this location it is predicted that the southern facing facades of the containers will be visible as will the antennas and any cars within the parking bays. At approximately 2.4m high, these containers will be relatively low features within the landscape; they will occupy only a small proportion of the overall view and will be viewed against existing vegetation and not break the skyline, reducing their impacts. Vehicles entering and exiting the site may be a noticeable feature, however farm vehicles are currently evident and therefore vehicle movement will not be an uncharacteristic feature within the view.
- 14.12.3.23 The marine cable may be visible as it passes through the gully and where it crosses in front of the recently installed gate. It may also be visible as it passes through the field to the southwest of the control station. From all other locations along its route, it is predicted that either existing vegetation or the he stone wall to the field boundary will screen views.
- 14.12.3.24 Views of the vessels undertaking inspection and maintenance operations may clearly visible in views out across the open water of the Celtic Sea as will the navigational marker buoy, if required.
- 14.12.3.25 Magnitude of Visual Effects: Moderate.

- 14.12.3.26 The containers of the control station will be a recognisable new element within the view; however, they will be set against existing vegetation and occupy only a very small proportion of the overall view. The marine cable is predicted to be a very minor component that may be missed by the casual observer. Although the intermittent O&M vessels will be visible, they will be seen with other vessels within this part of the view and therefore the key views out across the open water will be retained. Any effects will be temporary in nature. Overall, the quality of the view is predicted to remain intact.
- 14.12.3.27 Significance of Visual Effects: Moderate
- 14.12.3.28 Receptors are considered to be of high sensitivity and the magnitude of effects moderate. The control station and marine cable will result in a small alteration to the existing visual character of the view, as it will introduce a manmade structure in to the landscape; however this will affect only a very small proportion of the overall view and will not impact on key views across the open water, from the Wales Coast Path.
- 14.12.3.29 On balance, it is considered that effects on visual amenity will be moderate and not significant under the EIA Regulations (section 14.9.3.9). Effects are considered to be neutral, as the development will be incorporated into the view without changing its overall nature.



Figure 14-14A: Viewpoint 2: Wales Coast Path (looking west)



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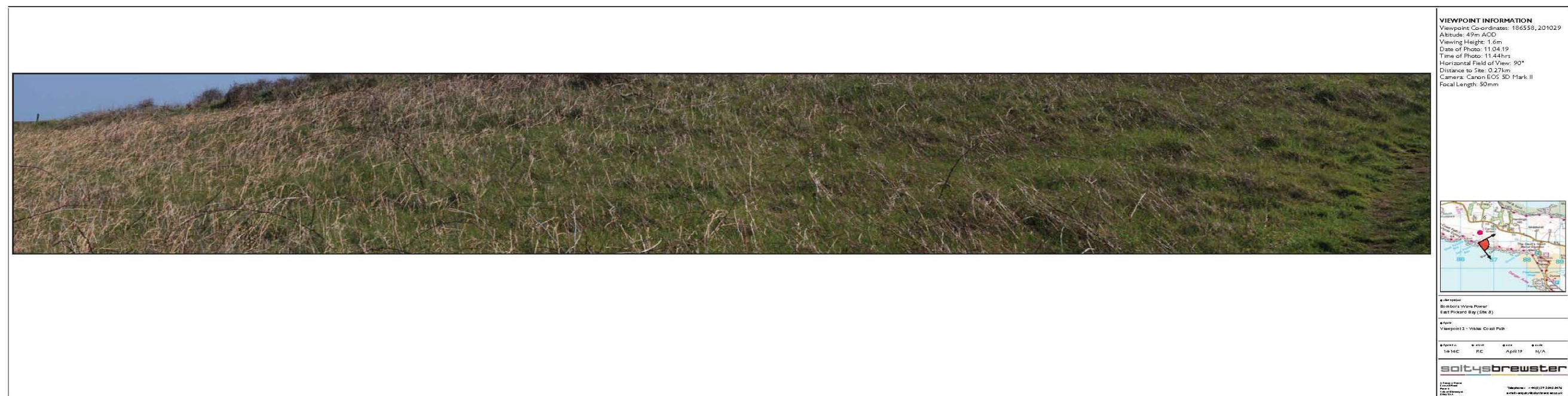


Figure 14-14C: Viewpoint 2: Wales Coast Path (looking east)

Viewpoint 3: War Memorial, B4319

14.12.3.30 Landscape/Seascape Character Area & Designations: LCA 7 – Angle Peninsula and SCA 34 – Freshwater West. Located within Pembrokeshire Coast National Park.

14.12.3.31 Susceptibility to Change of Visual Receptors: High

14.12.3.32 Receptors are within the Pembrokeshire Coast National Park and situated a war memorial, which is marked on OS maps. Although not located on a recognised footpath, main receptors are likely to be walkers, connecting to the nearby Wales Coast Path.

14.12.3.33 Sensitivity of Visual Receptors: High

14.12.3.34 Receptors are located within a National Park and at location that may attract tourists due to in connections to World War II. The site contains benches that overlook Freshwater West Beach.

14.12.3.35 Existing View: Located approximately 1.86km east of the proposed control station, views west are across gently rolling farmland of improved and semi-improved grassland. Fields are typically enclosed by low hedgerows. Within the foreground and within close proximity of the cliff top are remains of buildings from World War II are clearly visible. Another World II structure is also located on the ridgeline within the far distance of the view. Other man-made features within this part of the view include the tower to Rocket's Cart House, a residential property on the B4320, near Hardings Hill and buildings to Carter's Green Farm.

14.12.3.36 To the north foreground views are dominated by farmland, where in the distance the chimney flues, gas holders and the wind turbines to the Puma Energy/Murco Refinery are all visible. Further to the north west, the infrastructure, including the gas holders to the South Hook LNG Terminal can be seen. To the north east the chimney flues to Rhoscrowther Oil Refinery are visible, extending above the hedgerow.

14.12.3.37 Looking south, there are elevated views across the beach of Freshwater West towards Linney Head and out across the open water of the Celtic Sea.

14.12.3.38 Predicted View: From this location it is predicted that only the tops of the containers will be visible from this location as intervening earth banks will screen the majority of the control station, including the car parking bays. Due to intervening topography, views of the vessels used for inspection and maintenance are predicted to be restricted to glimpsed views only.

14.12.3.39 The marine cable will be screened by a combination of topography and vegetation.

14.12.3.40 Magnitude of Visual Effects: Negligible.

14.12.3.41 Due to the size of the control station and the small proportion of the view that it will occupy, the size of the receiving landscape in which it will be viewed within and also the distance at which it will be viewed, it is predicted that the control station will be barely perceptible and will have no effect on the overall quality of the view. Any views of the vessels used for O&M operations will not be a prominent feature due to the screening of intervening vegetation and the existing presence of vessels currently operating within area of the sea.

14.12.3.42 Significance of Visual Effects: Minor

14.12.3.43 Receptors are considered to be of high sensitivity and the magnitude of effects negligible. The control station and marine cable will be visually integrated in to the existing view without the loss of the key features that currently define it, including the views towards Freshwater West and the Celtic Sea.

14.12.3.44 On balance, it is considered that effects on visual amenity will be minor and not significant under the EIA Regulations. Effects are considered to be neutral, as the development will be incorporated into the view without changing its overall nature.



Figure 14-15A: Viewpoint 3: War Memorial, B4319 (looking south)

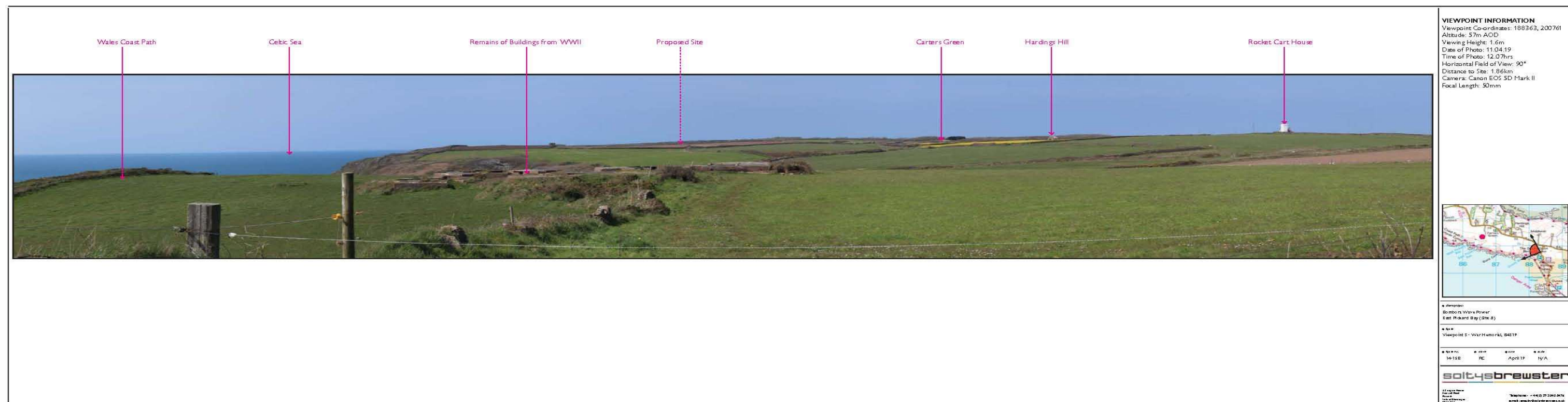


Figure 14-15B: Viewpoint 3: War Memorial, B4319 (looking west)



Figure 14-15C: Viewpoint 3: War Memorial, B4319 (looking north)

Table 14-20: Summary of Seascape Character Assessment

Viewpoint Number	Seascape Sensitivity	Magnitude of Effect	Significance of Effects Installation and deployment, and decommissioning phase	Significance of Effects Operational Phase
SCA 29 – Southern Inshore Waters	Moderate	Negligible	Minor Neutral	Negligible Neutral
SCA 31 – Outer Milford Haven	Moderate	Negligible	Minor Neutral	Negligible Neutral
SCA 32 – Inner Milford Haven	n/a	n/a	n/a	n/a
SCA 34 – Freshwater West	High - Moderate	Low	Minor Neutral	Minor Neutral
SCA 35 – Castlemartin and Coastal Waters	High - Moderate	Low		Minor Neutral

Table 14-21: Summary of Landscape Character Assessment

Viewpoint Number	Landscape Sensitivity	Magnitude of Effect	Significance of Effects Installation and deployment, and decommissioning phase	Significance of Effects Operational Phase
LCA 6 – Castlemartin/Merrion Ranges	Moderate	Negligible	Negligible	Minor Neutral
LCA 7 – Angle Peninsula	High - Moderate	Low	Minor Neutral	Moderate Neutral
LCA 8 – Freshwater West/Brownsdale Burrows	High - Moderate	Negligible	n/a	Minor Neutral
LCA 11 - Herbrandston	n/a	n/a	n/a	n/a

Table 14-22: Summary of Visual Impact Assessment

Viewpoint Number	Landscape receptor	Magnitude of Effect	Significance of Effects Installation and deployment, and decommissioning phase	Significance of Effects Operational Phase
VP1:Hill Fort, South West of the Site	High	Low	Minor Neutral	Minor Neutral
VP2: Wales Coast Path	High	Moderate	Moderate Adverse	Moderate Neutral
VP3: War Memorial, B4319	High	Negligible	Negligible Neutral	Minor Neutral

14.12.4 Future monitoring

- 14.12.4.1 No landscape seascape visual assessment monitoring to test the predictions made within the installation or operation phase impact assessment is considered necessary.

14.13 Cumulative Impact Assessment

14.13.1 Methodology

- 14.13.1.1 The Cumulative Impact Assessment (CIA) takes into account the impact associated with the mWave project together with other projects and plans. The projects and plans selected as relevant to the CIA presented within this chapter are based upon the results of a screening exercise (Chapter 4: Environmental Assessment Methodology). Each project has been considered on a case by case basis for scoping in or out of this chapter's assessment based upon data confidence, effect-receptor pathways and the spatial/temporal scales involved.
- 14.13.1.2 In undertaking the CIA for the mWave project, it is important to bear in mind that other projects and plans under consideration will have differing potential for proceeding to an operational stage and hence a differing potential to ultimately contribute to a cumulative impact alongside the mWave project. For example, relevant projects and plans that are already under construction are likely to contribute to cumulative impact with the mWave project (providing effect or spatial pathways exist), whereas projects and plans not yet approved or not yet submitted are less certain to contribute to such an impact, in part due to the short timescale of the mWave project, but also as some may not achieve approval or may not ultimately be built due to other factors.

Table 14-23: List of other projects and plans considered within the CIA.

Project phase	Developer - Reference	Approx. distance to overlap with the mWave (km)	Spatial/ temporal overlap with the mWave project	Details	Date of Construction	Further Consideration required?	Justification
Dredging sites							
Installation/ Operation and Maintenance	Neyland Yacht Haven Ltd. - DML1743		No spatial overlap. Potential for temporal overlap.	Dredge and disposal from Neyland Marina - annual volume 5500 m³.	13/12/2017-12/12/2020	No	Dredging impact forms part of baseline and mWave project has no dredging or disposal associated with it. Distant from mWave and therefore highly unlikely to have any impact overlap. No further consideration.
Installation/ Operation and Maintenance	Milford Haven Port Authority - DML1646	4.5	No spatial overlap. Potential for temporal overlap.	Maintenance dredging throughout the Milford Haven. Annual volume 362500 m³.	09/03/2017-08/03/2022	No	Dredging impact forms part of baseline and mWave project has no dredging or disposal associated with it. Distant from mWave project and therefore highly unlikely to have any impact overlap. No further consideration.
Dredge disposal sites							
Installation/ Operation and Maintenance	Neyland dredge disposal site - LU190	11.5	No spatial overlap. Potential for temporal overlap	Location: South of Neyland within the central channel of the Milford Haven, 0.22 nm diameter x 5 m depth Status: Open	Not applicable	No	Disposal impact forms part of baseline and mWave project has no dredging or disposal associated with it. Distant from mWave project and therefore highly unlikely to have any impact overlap. No further consideration.
Installation/ Operation and Maintenance	Milford Haven dredge disposal site - LU170	5	No spatial overlap. No temporal overlap as site is closed.	Location: South of St Ann's Head at the mouth of the Milford Haven estuary, unknown diameter x 30 m depth. Status: Closed	Not applicable	No	Dredge disposal site is not in use therefore no further consideration required.
Installation/ Operation and Maintenance	St Ann's Head dredge disposal site - LU180	5	No spatial overlap. No temporal overlap as site is closed	Location: Within the Milford Haven dredge disposal site, unknown diameter x 30 m depth. Status: Closed	Not applicable	No	Dredge disposal site is not in use therefore no further consideration required.
Installation/ Operation and Maintenance	Milford Haven Two dredge disposal site - LU169	16	No spatial overlap. No temporal overlap.	Location: To the south of Milford Haven dredge disposal grounds, unknown diameter x 50 m depth. Status: Open		No	Dredge disposal site is located approximately 16 km from the mWave it is therefore highly unlikely to have any impact overlap. No further consideration.
Installation/ Operation and Maintenance	Milford Haven Three dredge disposal site - LU169	37	No spatial overlap. No temporal overlap.	Location: To the west of Milford Haven dredge disposal grounds, 1 nm diameter x unknown depth. Status: Open		No	Dredge disposal site is located at its closest 34.7 km from the mWave project, it is therefore highly unlikely to have any impact overlap. No further consideration.
Research							
Installation	Greenlink Interconnector Ltd. - RML1827	0	Potential spatial overlap. Temporal overlap	Ground investigations		Yes	Research operations are likely to have vessels present, with equipment for undertaking ground truthing surveys therefore this project cannot be excluded from further consideration in the CIA.
Installation	University College of Swansea - DEM1861	7	No spatial overlap. Temporal overlap.	Pembroke Power bubble barrier experiment. Investigation into the effectiveness of bubble curtains in sediment management	07-2018 - no end date given Band 2 licence issued 12/12/2018 - three-year study	No	Distant from mWave project and therefore highly unlikely to have any impact overlap. No further consideration.
Installation	University College of Swansea - DEM1845	0.6z	No spatial overlap. Temporal overlap	Deposition and subsequent removal of marker buoys with environmental monitoring and mid-water settlement plates.	30/08/2018-29/08/2019	Yes	Vessels and equipment will be required for the placement of marker buoys. It is likely to have temporal with mWave activities. This projects cannot be excluded from further consideration in the CIA
Installation/ Operation and Maintenance	Neyland Yacht Haven Ltd - CML1658	11.5	No spatial overlap. No temporal overlap.	Pile replacement in Neyland Marina.	21/11/2016-20/11/2019	No	Pile replacement is currently ongoing until 2019, which does not overlap with the installation and operational phases of mWave. Given the distance from mWave project it is therefore highly unlikely to have any impact overlap. No further consideration
Installation/ Operation and Maintenance	Mixed use developments - Local Planning Authority Reference: 14/0158/PA		No spatial overlap. Temporal overlap remains unknown	Undetermined planning application. Demolition of several existing buildings and the mixed-use redevelopment of Milford Waterfront	EIA screening decision was returned on the 30/04/2018 - no	No	Given the distance from mWave project it is therefore highly unlikely to have any impact overlap. No further consideration.

Project phase	Developer - Reference	Approx. distance to mWave (km)	Spatial/ temporal overlap with the mWave project	Details	Date of Construction	Further Consideration required?	Justification
e			due to insufficient information on start and end dates.	comprising up to 26,266 m2 of commercial, hotel, leisure, retail and fishery related floorspace. Up to 190 residential properties, up to 70 additional marina berths, replacement boat yards, landscaping, public realm enhancements, access and ancillary works. A decision on this application is yet to be made by the local planning authority.	further information has been provided		
Installation/ Operation and Maintenance/ Decommissioning	Greenlink Interconnector Ltd. - Government reference: qA1296053	0	Spatial overlap Temporal overlap	The Project is a 500MW subsea electricity interconnector linking the power markets in Ireland and Great Britain and is planned for commissioning in 2023. As an EU Project of Common Interest, it is one of Europe's most important energy infrastructure projects. The interconnector is planned to make Landfall at Fresh Water West beach	07/2018 ongoing	Yes	Given potential for temporal and spatial overlap with mWave this project cannot be excluded from further consideration in the CIA.
Installation/ Operation and Maintenance/ Decommissioning	Valereo - Welsh Government reference: qA1312073		No overlap with the mWave project as project is assumed to have no marine components. Onshore is remote from mWave control station site.	Development of a cogeneration facility to supplement electrical power and steam demands of the refinery all within the refinery boundaries on land	07/12/2017 - Nationally significant project (ongoing)	No	Project is assumed to have no marine elements to the project. Onshore is remote from mWave control station site, therefore there will be no impact overlap. No further consideration.
Installation/ Operation and Maintenance	EGNEDOL Wales Ltd	N/A	Potential temporal overlap	EGNEDOL propose to create an environmentally sustainable centre of excellence in Milford Haven, at the Waterston and Blackbridge sites. The proposal includes providing business units and refurbishing a jetty to serve as a primary supply link to the EGNEDOL electricity generation plan, and for export of products. The land-based green energy scheme may generate up to 350 MW.	Not available	No	Planning permission for the EGNEDOL project was refused on 19/10/2018, therefore it is considered highly unlikely that this project will overlap temporally with the mWave project. No further consideration.
Ministry of Defence sites							
	Ministry of Defence	0.1	Temporal overlap	The Castlemartin Range is located immediately south of the entrance to the Waterway and extends for up to 12 NM from the coast between Little Furznip (at the southern extent of Freshwater West) and St Govan's Head (Milford Haven Port Authority 2019). The southern boundary of the East Pickard Bay (Site 8) site is located adjacent to the northern boundary of the Castlemartin Military Practice Area D113A. The range at Castlemartin supports the training of military personnel (Army) in the firing of a range of munitions at land based targets. The seaward danger area provides a safety zone for overfire and shrapnel which may result from the striking of targets (RPS, 2010). The Castlemartin Range is used every day of the week and on some weekends (RPS, 2010).	Not applicable	Yes	There is a high level of uncertainty as to timing of MOD activities at the MOD site, however on-going activity is likely therefore there is the potential for cumulative impacts with the mWave project.
Aquaculture projects							
Installation/ Operation and Maintenance	Tethys Oysters	3	Temporal overlap	The oyster farm is located on the eastern side of Angle Bay, whereby oysters are grown in baskets on metal supports. The farm will be serviced from the shore by foot	Oct 2017 – Oct 2020 (possible renewal of licence)	No	Whilst there is potential for temporal overlap with the mWave project, it is distant and therefore highly unlikely to have any impact overlap. No further consideration.
Installation/ Operation	Pembrokeshire Scallops	6.5	Temporal overlap	The scallop farm is located within Castlebeach Bay,	Jan 2019 – Q4	no	Whilst there is potential for temporal overlap with the

Project phase	Developer - Reference	Approx. distance to mWave (km)	Spatial/ temporal overlap with the mWave project	Details	Date of Construction	Further Consideration required?	Justification
and Maintenance				whereby a system of weighted ropes will be deployed for growing scallops and mix species of native algae. The farm will be serviced by vessels and divers	2020 (possible renewal of licence)		mWave project, it is distant and therefore highly unlikely to have any impact overlap. No further consideration.
Pembroke Dock Marine Projects							
Installation/ Operation and Maintenance	Milford Haven Port Authority - SC1810: Pembroke Dock Infrastructure	10	No spatial overlap. Potential for temporal overlap	Pembroke Dock redevelopment. Scoping Report submitted. The intention of the Project is to create a flexible and efficient port-related office, industrial, warehousing and distribution, and ancillary operations infrastructure. This will involve the redevelopment of its existing space to incorporate increased deep-water access, internal and external heavy fabrication areas, construction of MEECE and Education/Skills Facility and the construction of a heavy lift facility.	Q3 2019 – Q3 2023	No	Port activity as a result of Pembroke Dock Port operations is distant and therefore highly unlikely to have any impact overlap. No further consideration.
Installation/ Operation and Maintenance	META Project, Site 8	0	Spatial overlap Temporal overlap will occur throughout the duration of the mWave project	The META project will allow the deployment and testing of marine renewable devices in the waters off East Pickard Bay. There is potential for the offshore area of Site 8 to be used at the same time as the mWave deployment. An assessment of the maximum META project design has been undertaken in the ES supporting the consents.	In consenting	Yes	Given potential for temporal and spatial overlap with mWave this project cannot be excluded from further consideration in the CIA
Installation/ Operation and Maintenance/Decommissioning	Marine Energy Wales - DEML1875	9.4	No spatial overlap Potential for temporal overlap	Marine Energy Test Area - Phase 1 Band 2 application submitted. The Project aims to create pre-consented test areas within the Pembroke Dock area. The test areas will have licensable activities to suit testing of initial stage marine renewable devices. These include testing of non-operating components and subassemblies. No full-scale testing is to be supported within the test areas	21/04/2019-21/04/2029	No	Project is distant and therefore highly unlikely to have any impact overlap. No further consideration.
Installation/ Operation and Maintenance/Decommissioning	Wave Hub Ltd. - SC1082	20	No spatial overlap No temporal overlap	Demonstration zone Scoping Report submitted The Project entails the development of 90 km2 of seabed with water depths of approximately 50 metres and a wave resource of approximately 19 kW/m; to support the demonstration of wave arrays with a generating capacity of up to 30MW for each project. Consent for this Project could be achieved in 2022, infrastructure could be built by 2024 and the first technology could be installed in 2025.	2024	No	No temporal overlap with the mWave project. No further consideration.

- 14.13.1.3 The majority of the projects listed above are located within the Milford Haven Waterway with the main impact associated with increases in vessel movements within this already busy waterway where shipping is a common visible element. Only projects/plans associated with the mWave project and their potential cumulative impacts are identified and assessed as part of this landscape seascape CIA. Increases in the number of vessel movements in the seascape surrounding the East Pickard Bay site have been identified as a result of the Greenlink Interconnector Cable Project, META Site 8 and the MOD Project. Consequently, a CIA has been undertaken as follows:

14.14 Cumulative Effect of Greenlink Interconnector Cable Project, META Site 8 and the MOD Project

- 14.14.1.1 This landscape and seascape is open and rugged and with evidence of recreational boating including markers buoys. The commercial shipping route to the port lies in the seascape to west with large ships visible in the background. The shoreline and cliffs are rugged and undeveloped.

Sensitivity of the receptors

- 14.14.1.2 This coastline is considered to be of outstanding value. Due to the function of this part of the landscape for recreational walking along the Wales Coast Path and the seascape for recreational boating and the presence of commercial shipping in the background on route to the port for commercial shipping, mooring of occasional ships and the MOD firing range, there are some factors that detract from sensitivity. However, the coastline is rural and undeveloped.
- 14.14.1.3 Consequently, the receptor is deemed to be of high susceptibility and high sensitivity.

Magnitude of effect

- 14.14.1.4 The magnitude of the impact of the visible elements of the projects will result in increased vessel movements, specifically:
- 14.14.1.5 Effects from the Greenlink Interconnector Cable Project will be direct within SCA 34 – Freshwater West, as will the META site 8 project. Effects as a result of activity associated with the MOD project will be indirect. All effects however, will be intermittent, short term and temporary in duration. The main effects on seascape/landscape character and visual amenity will be the increase in the movement of vessels, for the O&M of META site 8, which may be viewed in conjunction with the O&M vessels associated with the mWave project.

Significance of the effect

- 14.14.1.6 The cumulative effects of the projects identified and the mWave is considered to be moderate and neutral. The cumulative effect of the Greenlink Interconnector Cable Project, META site 8 and the MOD Project will add more vessel movements, however they will potentially not be within their respective sites at the same time and the movement of vessels is not an uncharacteristic feature of the seascape or of existing views.

14.15 Transboundary effect

- 14.15.1.1 A screening of transboundary impacts has been carried out and has identified that there was no potential for significant transboundary effects with regard to landscape seascape visual impacts from the mWave project upon the interests of other European Economic Areas (EEA) States.

14.16 Inter-related effects

- 14.16.1.1 Inter-relationships are considered to be the impacts and associated effects of different aspects of the proposal on the same receptor. These are considered to be:
- Project lifetime effects: Assessment of the scope for effects that occur throughout more than one phase of the project (installation, operational and maintenance, and decommissioning), to interact to potentially create a more significant effect on a receptor than if just assessed in isolation in these three key project stages (e.g. subsea noise effects, operational turbines, vessels and decommissioning); and
 - Receptor led effects: Assessment of the scope for all effects to interact, spatially and temporally, to create inter-related effects on a receptor. As an example, all effects on [chapter topic], such as [direct habitat loss or disturbance, sediment plumes, scour, jack-up vessel use etc.], may interact to produce a different, or greater effect on this receptor than when the effects are considered in isolation. Receptor-led effects might be short term, temporary or transient effects, or incorporate longer term effects.
- 14.16.1.2 There will be no landscape or seascape inter-related effects arising from the mWave project.

14.17 Conclusion and summary

- 14.17.1.1 The seascape landscape visual impact assessment has considered effects of the proposed development during the installation and deployment, operation and maintenance, and commissioning for the mWave project.

- 14.17.1.2 Due to the type and size of the development proposed and the character of the landscape in which it is located, effects on seascape and landscape character during the installation, deployment and decommissioning phase will be restricted to a very small proportion of the total study area. Effects will predominantly be restricted to locations within the immediate environs of the site where the movement of vessels used to deploy the mWave device and installation activity associated with the onshore control station and laying of the cable will be evident. This activity may result in small, but temporary change in landscape character in particular, although any effects are not predicted to be significant.
- 14.17.1.3 Effects on seascape and landscape character during the operational and maintenance phase of the project are not predicted to be significant from any of the SCA or LCA that fall within the study area. Any effects on seascape character will be restricted to within SCA 34 – Freshwater West. Within this character area the movement of vessels undertaking maintenance work will be visible, but not an uncharacteristic component of the seascape. The introduction of the cable to the onshore control station may also result in a very minor change in character to the foreshore, although any effects will be limited to a small proportion of the SCA as a whole. Effects on landscape character will be restricted to within LCA 7 – Angle Peninsula, where the introduction of the onshore control station will increase the perception of manmade elements within the landscape. However any effects will be limited to a very small proportion of the total land within the LCA and will be temporary in duration. From the majority of the LCA there will be no perceptible change in landscape character following the introduction of the mWave project.
- 14.17.1.4 Effects on visual amenity during the Installation and deployment, and decommissioning phase would be predominantly restricted locations within close proximity of the site, including the Wales Coast Path. From these close distance locations the movement of vessels within the water will be evident, although not an uncharacteristic element of views. Work to the site entrance may also be visible, as will the installation of the onshore control station and the laying of the marine cable. Any effects will however be short in duration and restricted to a very limited proportion of the total study area.
- 14.17.1.5 Locations within the 5km study area where the mWave project and most noticeably the onshore control station will be significantly restricted by topography and existing vegetation and therefore from the majority of the study area there will no significant effects on visual amenity as a result of the mWave project.
- 14.17.1.6 From the three viewpoints assessed the onshore control station and cable will be most notable from VP 2 – Wales Coast Path. The containers to the control station will be a recognisable new element within the view; however, they will be set against existing vegetation and occupy only a very small proportion of the overall view. The marine cable may also be visible; however it is predicted to be a very minor component of views. When looking out to sea, the O&M vessels will be visible, although they will be seen with other vessels within this part of the view and therefore the key views out across the open water will be retained. Any effects will be temporary in nature. Overall, the quality of the view is predicted to remain intact.
- 14.17.1.7 From the other two locations the onshore control station will be the most visible element of the project, however it is predicted that it will form a component of the wider view that may be missed by the casual observer. Effects on visual amenity are not predicted to be significant from any of the three viewpoint locations assessed.
- 14.17.1.8 With regards to cumulative effects, the Greenlink Interconnector Cable Project, META site 8 and the MOD Project will add more vessel movements, however they will potentially not be within their respective sites at the same time and the movement of vessels is not an uncharacteristic feature of the seascape or of existing views, therefore cumulative effects are not considered to be significant.
- 14.17.1.9 The SLVIA demonstrates that there will be no significant effects on landscape/seascape character or visual amenity as a result of the installation of the onshore and offshore elements to the mWave project. The use of existing vegetation and earth bunds will ensure that the main elements of the development that will be visible i.e. the onshore control station are not unsympathetically sited within the landscape and will not result in significant visual intrusion. The proposals are for a small scale renewable energy scheme and will not compromise the special qualities of the National Park. Therefore it is considered that the proposals do not conflict with national or local planning policy as set out within Section 14.4.

14.18 References

- An Approach to Landscape Character Assessment, Natural England (2014).
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- Pembrokeshire Coast National Park Management Plan 2015 – 2019 (2014).
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