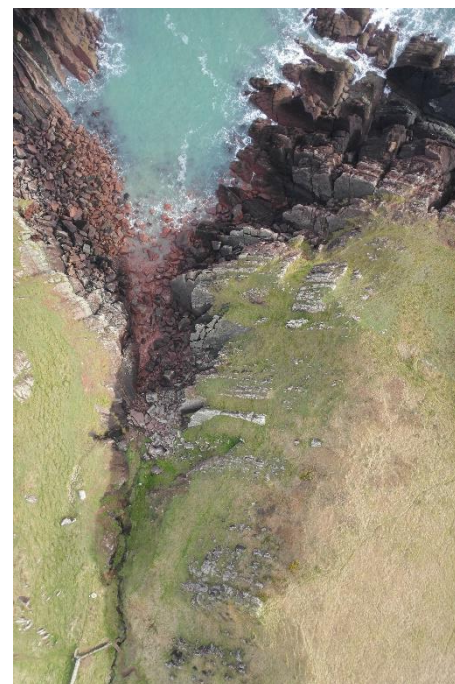




**mWave Marine Energy Device
and Onshore Infrastructure**

ENVIRONMENTAL STATEMENT



CHAPTER 1 Introduction

June 2019

Table of Contents

Glossary	ii
Acronyms	ii
1. INTRODUCTION	1
1.1 Introduction	1
1.2 The applicant	1
1.2.2 The Project and its location	1
1.3 The journey so far and consultation	6
1.4 Permissions required for the mWave project	6
1.4.2 Marine and Coastal Access Act (MCAA) Marine Licence	6
1.4.3 Marine Works Licence (Milford Haven Port Authority)	7
1.4.4 Planning permission	7
1.4.5 Decommissioning plan sign off (Department for Business, Engineering and Industrial Strategy)	8
1.4.6 S.36 Electricity Act (Welsh Government – Planning Inspectorate)	8
1.4.7 Crown Estate Lease (Crown Estate)	8
1.5 Information in support of permissions	9
1.5.1 Environmental Statement	9
1.5.2 Habitat Regulation Assessment	9
1.5.3 Water Framework Directive Assessment	9
1.5.4 Design and Access Statement	9
1.6 Structure of the Environmental Statement	10
1.7 Further information	11
1.7.1 Environmental Statement submission	11
1.7.2 Publicising the Environmental Statement	11
1.8 References	12

Table of Tables

Table 1.1: Summary of permissions for mWave project	9
Table 1.2: Structure of the Environmental Statement	10

Table of Figures

Figure 1.1a: Redline boundary for offshore works	3
Figure 1.1b: Redline boundary for onshore works	4
Figure 1.2: Location of mWave project and designated areas.	5
Figure 1.3 Flow diagram from Welsh Government DAS guidance	10

Glossary

Term	Definition
Cumulative impact	Impacts that result from changes caused by other past, present or reasonably foreseeable actions together with the mWave project, that have not already been considered as part of the baseline.
Acoustic Doppler Current Profiler	An acoustic doppler current profiler (ADCP) is a hydroacoustic current meter similar to sonar, used to measure waves and water current velocities over a range of depth.
Effect	Term used to express the consequence of an impact. The significance of an effect is determined by correlating the magnitude of the impact with the importance, or sensitivity, of the receptor or resource in accordance with defined significance criteria.
EIA Directive	European Union Directive 85/337/EEC, as amended by Directives 97/11/EC, 2003/35/EC and 2009/31/EC and then codified by Directive 2011/92/EU of 13 December 2011 (as amended in 2014 by Directive 2014/52/EU).
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 Statement.
Impact	Change that is caused by an action; for example, land clearing (action) during construction which results in habitat loss (impact).
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.
MHWS	The height of mean high water springs is the average throughout the year (when the average maximum declination of the moon is 23.5°) of two successive high waters during those periods of 24 hours when the range of the tide is at its greatest.
MLWS	The height of the mean low water springs is the average height obtained by the two successive low waters during the same period as mean high water springs.
Receptor	A component of the natural or man-made environment that is affected by an impact, including people.
Special Area of Conservation (SAC)	A site designation specified in the Habitats Directive (Council Directive 92/43/EEC). Each site is designated for one or more of the habitats and species listed in the Directive. The Directive requires that a management plan be prepared and implemented for each SAC to ensure the favourable conservation status of the habitats or species for which it was designated. In combination with SPAs, these sites contribute to the 'Natura 2000' or 'European' Sites network.
Special Protection Area (SPA)	A site of European Community importance designated under the Birds Directive (Directive 2009/147/EC), classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species. SPAs contribute to the Natura 2000 Sites network.
Site of Special Scientific Interest (SSSI)	Conservation designation denoting a protected area. In England and Wales these sites are identified and protected under the Wildlife and Countryside Act 1981 (as amended).
Subsea Umbilical Termination Unit	Underwater connection box approx 1.5m ² . mWave umbilical and ADCP will connect into unit.
Transboundary	Crossing into other European Economic Association (EEA) States.

Acronyms

Acronym	Description
ADCP	Acoustic Doppler Current Profiler
BEIS	Department for Business, Energy and Industrial Strategy
bcd	Below chart datum
CIA	Cumulative Impact Assessment
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EMMP	Environmental Mitigation and Monitoring Plan
ES	Environmental Statement
IEMA	Institute of Environmental Management and Assessment
MCA	Maritime and Coastguard Agency
MCAA	Marine and Coastal Access Act
MEECE	Marine Energy Engineering Centre of Excellence
META	Marine Energy Test Areas
MEW	Marine Energy Wales
MHPA	Milford Haven Port Authority
MHWS	Mean High Water Springs
ML	Marine Licence
MLW	Mean Low Water
MLWS	Mean Low Water Springs
MMO	Marine Management Organisation
MOD	Ministry of Defence
NIP	National Infrastructure Planning
NRWa	Natural Resources Wales Advisory
NRW-PS	Natural Resources Wales Permitting Services
PCNPA	Pembroke Coast National Park Authority
RNLI	Royal National Lifeboat Institution
ROV	Remotely Operated Vehicle
SAC	Special Area of Conservation
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SUTU	Subsea Umbilical Termination Unit
TCE	The Crown Estate

1. INTRODUCTION

1.1 Introduction

- 1.1.1.1 This Environmental Statement has been prepared by Bombora Wave Power Ltd (Bombora) to support the consent/permission for the mWave demonstrator marine energy project and associated offshore and onshore works. The Environmental Statement presents the findings of the Environmental Impact Assessments which have been undertaken for the mWave project. The report accompanies the applications for a Marine Licence (ML) from Natural Resources Wales Permitting Services (NRW-PS) and Town and County Planning Permission from Pembrokeshire Coast National Park Authority (PCNPA). This chapter introduces and provides background to the project, summarises the consents that are required for the proposed works, and outlines the content of the Environmental Statement that has been produced to support the marine licence and planning application.

1.2 The applicant

- 1.2.1.1 The proposed mWave marine energy device is being developed by Bombora Wave Power Ltd (the applicant). Bombora is a privately owned award-winning ocean energy company, which was founded in 2012 in Perth Western Australia. Through private funding, Bombora were able to test and develop a small scale trial in 2014, followed by a medium scale in 2015.
- 1.2.1.2 With private funding from strong international investors, Bombora was able to establish its European operations in 2017 in Pembrokeshire - right in the heart of a dynamic, wave and tidal energy focussed region. In 2018 Bombora were given a £10.3m grant from the European Regional Development Fund to enable the construction and development of their large scale device.
- 1.2.1.3 After the successful testing of their small and medium scale prototype, and with an office based in Pembroke Dock, Pembrokeshire, Bombora look to test their first full scale device in the coastal waters off West Wales (see section 1.3). The long term aim is that Bombora's innovative mWave will produce environmentally friendly, consistent, cost competitive energy, for commercial scale needs in national electricity grids.

1.2.2 The Project and its location

- 1.2.2.1 The offshore element of the mWave project comprises a full scale Wave Energy Converter (WEC), mWave, and any agreed navigational markers, a Subsea Umbilical Termination Unit (SUTU) which connects mWave to an Acoustic Doppler Current Profiler (ADCP) for monitoring currents and the marine communication cable up to Mean High Water Springs (MHWS). The onshore works comprise the communication cable from Mean Low Water (MLW) to termination box and anchor point close to the coast, and then onwards to the control station. The project requires consent/permissions for 18 months to allow installation/decommissioning of the various elements and offshore testing for around 6-12 months.
- 1.2.2.2 The mWave device is to be located in the inshore waters of Pembrokeshire, south of the Angle Peninsula, with the communication cable making landfall at East Pickard Bay. The site is some 2.5km south-east of Sheep Island, the southern extent of the Milford Haven Waterway, and some 1.3km west of Freshwater West beach. The proposed deployment site off the Angle peninsula is exposed to a good wave resource benefiting from a significant fetch from the prevailing wind direction which is ideal for testing mWave. The device is to be located offshore at approximately 415m below Mean Low Water Spring (MLWS) at a water depth of around 11m below chart datum (bcd). The red line boundary for the marine licence and onshore planning application is shown on Figure 1.1a and 1.1b respectively.
- 1.2.2.3 The red line boundary for the marine licence includes the location of the full scale Wave Energy Converter (WEC), mWave, and any agreed navigational markers, a Subsea Umbilical Termination Unit (SUTU) which connects mWave to an Acoustic Doppler Current Profiler (ADCP) for monitoring currents and the marine communication cable up to Mean High Water Springs (MHWS). The area of the red line boundary for the marine licence is 2.6ha, as shown on Figure 1.1a. Further details are provided in Chapter 2: Project Description.
- 1.2.2.4 Figure 1.1a shows the red line boundary for the marine licence and includes detail on the following:
- infrastructure deployment area; the area within which the communications cable and SUTU will be deployed for the full operational period,
 - mWave deployment area; the area within which the mWave device will be deployed for the full operational period,
 - ADCP and ADCP communication cable deployment area; the area within which the ADCP and ADCP communication cable will be deployed for the full operational period,
 - temporary mooring area; the area within which temporary moorings could be deployed for installation or maintenance.

- 1.2.2.5 The red line boundary for the planning application (Figure 1.1b) includes the 5m communication cable corridor from Mean Low Water Spring (MLW) to termination box and anchor points close to the coast, and then onwards to the control station and the site access from the control station to the B4320. The area of the red line boundary for the planning application is 0.42ha
- 1.2.2.6 The offshore mWave site and communication cable lies within the Pembrokeshire Marine SAC designated for a range of features including grey seal, marine habitats, otter and species of migratory fish, and the West Wales Marine SAC proposed for harbour porpoise. Onshore designated areas extending to Freshwater West Beach to the east, include Castlemartin Coast Special Protection Area (SPA) and the Limestone Coast of South West Wales SAC. The mWave device will lie approximately 100m to the north of the Ministry of Defence (MOD) Danger Area. The deployment location, cable route corridor and designations in the area are shown in Figure 1.2. For future reference the boundary of META Site 8 project has also been shown and further information can be found in Section 1.3: The journey so far and consultation.

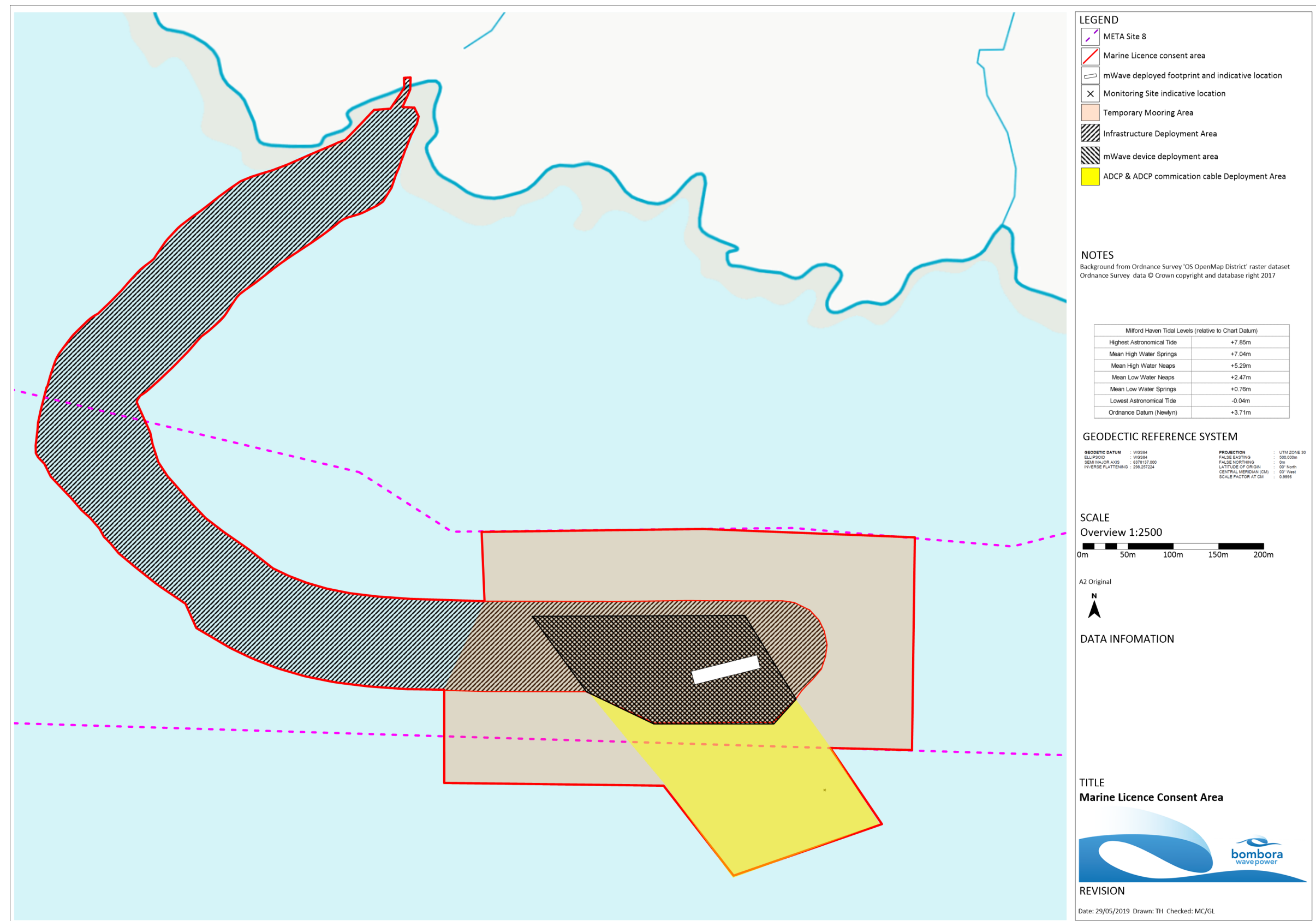


Figure 1.1a: Redline boundary for offshore works

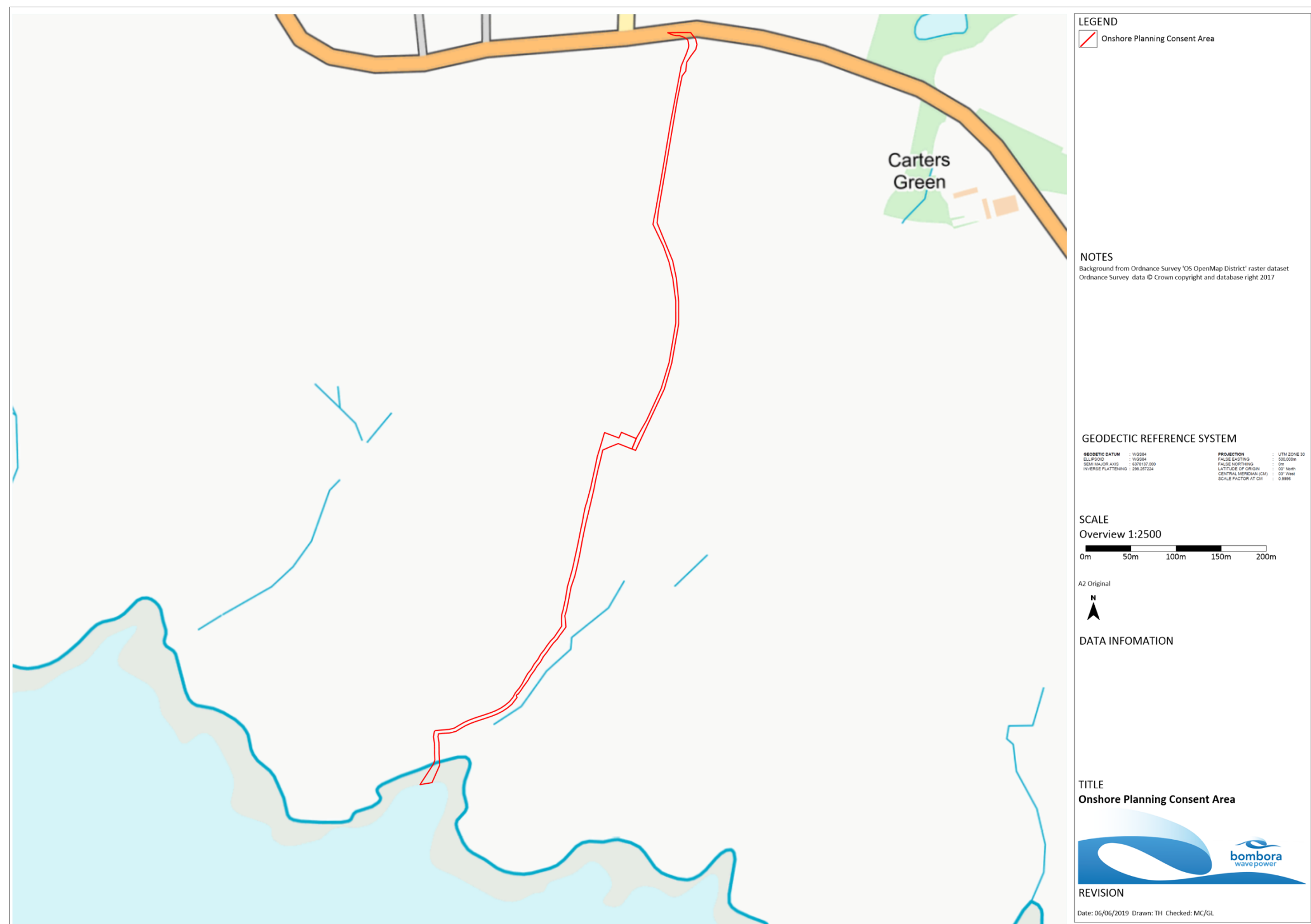


Figure 1.1b: Redline boundary for onshore works

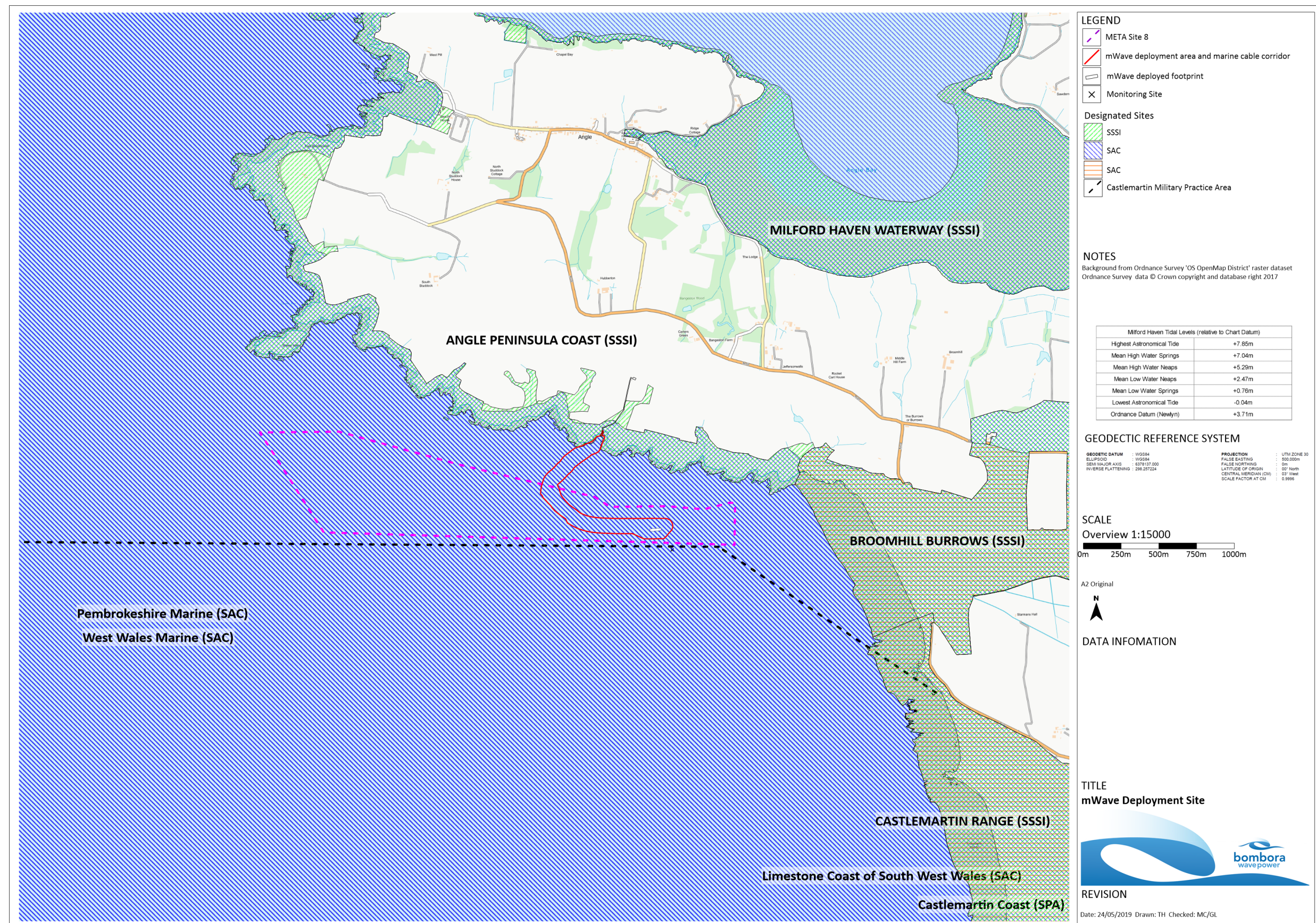


Figure 1.2: Location of mWave project and designated areas.

1.3 The journey so far and consultation

- 1.3.1.1 Pembrokeshire Coastal Forum (PCF) and Marine Energy Wales (MEW) are developing a Marine Energy Testing Area (META) in West Wales which comprises eight marine test sites. Five of these test sites, where limited activities will be undertaken, are directly adjacent to Pembroke Port Infrastructure. The remaining three sites (Phase 2 sites) are within Milford Haven Waterway (sites 6 and 7) and off East Pickard Bay (Site 8). These sites will be for the testing of a range of instrumentation as well as small and large scale marine energy devices over a fifteen year period. An Environmental Statement to assess the potential effects of the META project is required for these three sites due to their size and duration of use, along with their siting within a sensitive area. MEW, with support from RPS Energy Ltd, have prepared an Environmental Statement in support of the consents for the META project.
- 1.3.1.2 Originally, Bombora intended that the licensing and consenting of the mWave project would be undertaken within the consenting and licensing of the META project, with mWave being deployed within META Site 8 (East Pickard Bay) once consents for the META project as whole were in place and conditions discharged. However, due to the nature of the META project, which will facilitate testing of a variety of device types and sizes, the timescales of Bombora's project and after detailed consultation with NRW-PS and MEW it was agreed that the most appropriate route would be for Bombora to submit separate applications for consent for the mWave project outside of the framework of the META project consenting in anticipation of a shorter determination period for the mWave project.
- 1.3.1.3 Prior to the decision to progress separate permissions for mWave, detailed consultation on the META project, including the use of the East Pickard Bay site had been undertaken. This consultation comprised the preparation and submission of a scoping document on MEWs behalf by RPS Energy Ltd¹ in November 2018 to the relevant statutory bodies including NRW-PS and PCNPA. The scoping document was prepared under The Marine Works (Environmental Impact Assessment Regulations 2007 (the Marine Works Regulations) (as amended 2017) and The Town and Country Planning (EIA) (Wales) Regulations 2017. The scoping document used a Project Design Envelope which included the temporary deployment of mWave within META Site 8, with an onshore communications cable to an onshore control station. Four options on the routing of the onshore communications cable and onshore control station were included in the scoping document, including the option that has been selected in the mWave project. Feedback on the scoping document, which included four potential temporary onshore sites around Freshwater West, was provided by PCNPA in January 2019 and from NRW-PS in March 2019. In addition to this a range of public exhibitions were held which were attended by statutory and non statutory consultees, as well as local interest groups and the general public. The public exhibitions included specific details of the temporary deployment of mWave.

- 1.3.1.4 Whilst a formal scoping opinion for the temporary deployment of mWave through the marine licence has not been sought, feedback from the META consultation process with respect to the marine environment is of value and has been considered in the preparation of this Environmental Statement.
- 1.3.1.5 With regard to the onshore works, as identified above, a scoping response on the wider META project was received from PCNPA in January 2019. This response provided guidance on all four potential onshore control station options contained within the RPS document, each with their own distinct characteristics. Whilst further site specific scoping has not been undertaken this Environmental Statement has taken onboard the comments received with respect to the onshore works. Finally, ongoing consultation with NRW-PS and PCNPA will be undertaken throughout all stages of this Project.

1.4 Permissions required for the mWave project

- 1.4.1.1 The following sections outline the consenting and permitting requirements that are relevant to proposed mWave deployment. For completeness all relevant potential consents will be briefly discussed.
- 1.4.2 Marine and Coastal Access Act (MCAA) Marine Licence**
- 1.4.2.1 The Marine and Coastal Access Act (MCAA) 2009 (administered by Natural Resources Wales Permitting Services (NRW-PS)), make it a licensable activity to:
- Deposit any substance or object in the sea or on or under the sea bed from:
 - Any vehicle, vessel, aircraft or marine structure;
 - Any container floating in the sea;
 - Any structure on land constructed for depositing solids in the sea;
 - Construct, alter or improve any works either in or over the sea or under the seabed;
 - Use a vehicle, vessel, aircraft or marine structure to remove any substance or object from the seabed; and
 - Carry out any form of dredging, whether or not involving the removal of any material from the sea or seabed.
- 1.4.2.2 As the proposed mWave device requires deploying on the seabed with a marine cable connection to shore, an ADCP and relevant navigational markers, if required, a Marine Licence is required for the duration of deployment.
- 1.4.2.3 NRW-PS categorise projects into three Bands of application as follows:

¹ RPS (2018) Marine Energy Test Area (META), Environmental Impact Assessment. Scoping Report.

Band 1

1.4.2.4 Projects that are deemed to be of low risk and are therefore subject to a simpler licensing process. Band 1 activities include;

- Repair or replacement of bolts etc;
- Removal of marine growth etc;
- The installation of ladders;
- Deposit and subsequent removal of posts for the purposes of marking channels etc;
- Deposit and removal of marker buoys;
- The use of a vehicle or vessel to remove discrete pieces of minor debris unattached to the seabed;
- The removal of litter using a vehicle or vessel; and
- Any activity of a similar minor nature.

Band 2

- Small to medium scale construction, alteration or improvement of works e.g. coastal defence works, bridge repairs;
- Some removal activities using a vehicle or vessel e.g. removals from the seabed, pier demolition; and
- Maintenance dredging activities (unless part of a wider construction scheme) e.g. maintenance navigational dredging.

Band 3

1.4.2.5 Band 3 applications are defined as complex applications that have estimated costs for marine works as over £1 million, and/or require an EIA, and/or activities involving both construction and dredging elements including maintenance dredging. Examples of Band 3 applications include:

- Large construction schemes;
- Marine renewables developments;
- Marine aggregate extractions;
- Capital dredging campaigns; and
- Applications for multiple activities.

Review of bandings

1.4.2.6 Whilst mWave is a marine renewable project, its deployment is short term and temporary. The temporary mWave deployment would be a relatively small scale marine energy device which would require the installation and removal using a limited number of marine vessels. There would be no requirement for dredging or pre-installation works as the seabed is relatively flat at the deployment site and the cable will be laid on the seabed. The mWave device uses gravity foundations and as such it will be simply placed on the seabed. In terms of potential effects on the marine environment, for which assessment is provided in this document, mWave does not

have any moving parts which are exposed to the marine environment other than membranes secured to the device inflating and deflating with the changing pressure from the waves overhead to move air within the device (Chapter 2: Project Description).

1.4.2.7 As such, based on the above, and the fact that the mWave device is relatively benign, it is considered that it could fall within a Band 2 Marine Licence application. Band 2 applications do not require an EIA to be prepared in support of their licence application. Notwithstanding this, due to the sensitive location of deployment, namely within a Marine SAC, Bombora have undertaken an EIA which has been reported in this Environmental Statement and will submit a Band 3 Marine Licence application.

1.4.3 Marine Works Licence (Milford Haven Port Authority)

1.4.3.1 The Port of Milford Haven (51° 42' N, 05° 02' W) covers a well sheltered extensive area of the Haven from its entrance, which lies between St. Ann's Head (51° 41' N, 05° 10' W) and Sheep Island. The proposed installation site for the mWave device is approximately 2.5km southeast outside the Milford Haven Port. Whilst vessels for the project will operate from the Port, **no** formal permissions are required.

1.4.4 Planning permission

1.4.4.1 Planning permission will be required from Pembrokeshire Coast National Park Authority (PCNPA) for the temporary onshore control station and communication cable down to the Mean Low Water (MLW) mark. A separate planning application will be submitted to PCNPA with this Environmental Statement providing relevant onshore information in support.

1.4.4.2 As identified in Section 1.3.1.3 *et seq*, previous scoping of the META project included three offshore sites and four potential onshore sites for the control station, and a scoping opinion was issued on 18th January 2019 from PCNPA which identified the assessment required for the META project under the EIA regulations. under The Town and Country Planning (EIA) (Wales) Regulations 2017.

1.4.4.3 As discussed in Section 1.4.2 under the marine licence application process, it is considered that the mWave deployment could potentially be classified as Band 2 and as such would not require an EIA to be undertaken. For completeness, the mWave project has also been considered with respect to The Town and Country Planning (EIA) (Wales) Regulations 2017). Within the regulations Schedule 2, section 3 identifies the threshold for the Energy Industry developments. Of those projects listed items development a) and h) (see below) would be the closest 'fit' to the mWave project, namely:

(a) Industrial installations for the production of electricity, steam and hot water (unless included in Schedule 1); with an area greater than 0.5 hectares.

(h) Installations for hydroelectric energy production; with a generation capacity of greater than 0.5MW.

- 1.4.4.4 In terms of the mWave project, it is a short term deployment to test a full scale marine energy prototype and as such is not an 'industrial installation'. In terms of area, the onshore and offshore footprint will be less than the 0.5ha threshold, although permission will be sought for a wider area to allow micro-siting.
- 1.4.4.5 With regard to item (h) Installations for hydroelectric energy production; with a generation capacity of greater than 0.5MW. Whilst its future intended use is to produce electricity, and the prototype will have a rated capacity of 0.95MW, during the test deployment it will not be exporting electricity. In addition, hydroelectric schemes tend to be turbines by design usually within rivers, although marine turbines are becoming more prevalent. As discussed previously mWave does not have any moving parts which are exposed to the marine environment other than membranes secured to the device inflating and deflating with the changing pressure from the waves overhead to move air within the device. Based on the above, the mWave project could potentially be considered not to fall under schedule 2 of the EIA directive, and as such a detailed Environmental Impact Assessment may not be warranted.
- 1.4.4.6 In terms of the proposed onshore works, these are limited in extent (one site), require a short duration for installation (up to 10 days) and are temporary in nature (18 months). Whilst the control station and cable route is within the National Park, it is located away from the main tourist area (Freshwater West beach), it has good main road and farm track access and there is natural screening in the form of hedgerows and raised banks. In terms of the proposed cable it will be laid on the ground for the majority of its route with limited fixing to rock face within the gully. For the cable termination box and anchor point, positioning by existing features will be used to minimise potential effects, where possible, and the final details will be discussed and agreed with PCNPA.
- 1.4.4.7 Whilst some of the temporary works (lower part of the cable route and offshore element) are within a designated area (Pembrokeshire Marine Special Area of Conservation and Angle Site of Special Scientific Interest), based on the information above, it is considered that the temporary works are likely to have a low or negligible environmental effect.
- 1.4.4.8 As such whilst the proposed works could be considered not to fall under Schedule 1 or 2 of the EIA directive, and a detailed Environmental Impact Assessment may not be warranted, the proposed onshore cable and control station are located within a sensitive area (PCNPA) and sections are within internationally designated areas. For completeness an Environmental Impact Assessment has been undertaken for the Project as a whole (onshore and offshore works) and this information will be provided in support of the onshore planning application.

1.4.5 Decommissioning plan sign off (Department for Business, Engineering and Industrial Strategy)

- 1.4.5.1 Decommissioning of devices capable of generating power is governed by Sections 105 to 114 of the Energy Act 2004. Responsibility for the administration and management of decommissioning activities in Wales lies with the UK Department for Business, Energy and Industrial Strategy (BEIS).

- 1.4.5.2 Guidance on decommissioning is provided from BEIS in Decommissioning of Offshore Renewable Energy Installations under the Energy Act 2004 (March 2019). The decommissioning scheme applies to all wave and tidal energy installations which constitute a OREI (offshore renewable energy installation) which were consented or became operational *after June 2006*. An OREI includes a device which 'permanently rests on, or is permanently attached to, the bed of the waters'.
- 1.4.5.3 The decommissioning process has 8 stages which include preliminary discussion between BEIS and the developer, consultation with interested parties and preparation, submission and updating of a decommissioning plan, the implementation of the decommissioning plan and post decommissioning reporting.
- 1.4.5.4 With respect to the marine licence, more recently, offshore developers have been applying for installation, operation and decommissioning in a single marine licence application, to allow more flexibility and efficiency in the process. In taking this approach, it is expected that a condition will be placed on the ML requiring the method of decommissioning to be reviewed with the regulator closer to the time of decommissioning. This condition is usually in place to ensure developers are using the most current methods available and any previously unknown impacts have been assessed prior to the works commencing.
- 1.4.5.5 For the mWave project, as it is a short term deployment, namely up to 18 months, the methods of decommissioning are unlikely to have changed markedly since deployment. As such it is proposed to include decommissioning along with installation and operation, in a single marine licence application to NRW-PS, to ensure an efficient and thorough application.

1.4.6 S.36 Electricity Act (Welsh Government – Planning Inspectorate)

- 1.4.6.1 As of the 1 April 2019, the Welsh Government – Planning Inspectorate is responsible for considering and determining applications for consent under section 36 of the Electricity Act for offshore generating stations with a generating capacity of more than 1 MW but less than or equal to 100 MW. The mWave device will be operating at less than 1MW and as such S36 consent is not required.

1.4.7 Crown Estate Lease (Crown Estate)

- 1.4.7.1 Under the Crown Estate Act (1961), the Crown Estate (TCE) own the foreshore and seabed out to a distance of 12nm, and manages the right to generate electricity from wind, wave and tides on the continental shelf, under the Energy Act 2004 (Crown Estate, 2016). Rights for renewable energy developments are generally granted under an "Agreement for Lease" (Crown Estate, 2016). Under an Agreement for Lease, TCE grants an "option" to the developer over a specific area of seabed, with conditions associated such as successfully obtaining all statutory consents required for the development (such as a ML, MWL etc). If the conditions are met, and the developer then exercises their right to the Option, TCE are obliged to grant a lease for the use of the specific area of seabed to the developer.

- 1.4.7.2 As the mWave project includes the placing of infrastructure on the seabed, an Agreement for Lease will be required from TCE for the mWave project.
- 1.4.7.3 Following stakeholder engagement and examination of available guidance and legislation, Table 1.1 below summarises the consents that are considered to be required for the mWave temporary deployment.

Table 1.1: Summary of permissions for mWave project

Marine Works Licence	Marine Licence	Consent Requirements		Section 36
		Crown Estate Lease/	Town and Country Planning	
No	Yes	Yes	Yes	No

1.5 Information in support of permissions

1.5.1 Environmental Statement

- 1.5.1.1 Whilst an EIA may not necessarily be required for the mWave Project under various legislation, the EIA process is a valuable tool for identifying and collating information to inform an assessment of the likely significant environmental effects of a project. The findings of the EIA process are reported in an Environmental Statement to inform the relevant consenting authorities and interested parties, as part of the decision-making process .
- 1.5.1.2 As identified previously it was originally intended that the licensing and consenting of the mWave project would be undertaken within the consenting and licensing of the META project, with mWave being located at the eastern extent of site 8 (East Pickard Bay). As such the assessment of mWave and its cable route was originally included within the project design envelope of the META Environmental Statement. The Environmental Statement for the META project was undertaken by RPS for MEW, and this original Environmental Statement has been drawn upon by the Bombora ES, where appropriate, in particular with respect to East Pickard Bay.
- 1.5.1.3 Whilst the mWave device is short term and of limited extent compared to the META project, the baseline information for the META Site 8 is of relevance and has been used to ensure consistency of information across the two projects which are likely to be in the consenting process at the same time. This marine baseline data has been used to undertake a project specific assessment of the marine elements of mWave, whilst taking into consideration the predicted impacts for the META site 8 project. The assessment of the META project in conjunction with mWave has been included in the cumulative impact assessment within each marine environmental subject area. The assessment of potential impact of onshore components of the project were not included in the META Environmental Statement. As such site specific information has been collated to enable a robust assessment of the onshore element of the project within the mWave Environmental Statement.

- 1.5.1.4 This Environmental Statement has been prepared in accordance with the EIA Regulations. Although there is no statutory provision as to the form of an Environmental Statement, it must contain the information specified in Regulation 12 and Schedule 3 (information to be included in an environmental statement) of the EIA Regulations. This Environmental Statement provides all information required under Regulation 12 and Schedule 3 of the EIA Regulations. The information supplied within this Environmental Statement is considered to provide a clear understanding of the main and likely significant effects of the project upon the environment.

1.5.2 Habitat Regulation Assessment

- 1.5.2.1 As shown on Figure 1.2 the proposed mWave Project lies within or in close proximity to a number of internationally designated sites. For the onshore and offshore elements of the project, as the works are within or adjacent to a European site they are subject to the provisions of The Conservation of Habitats and Species Regulations 2017 and The Conservation of Offshore Marine Habitats and Species Regulations 2017 and, as such, an assessment must be undertaken by the Competent Authority. Whilst the mWave project covers both terrestrial and marine elements, and applications will be made to both NRW-PS and PCNPA, it is normal for one permitting authority to take the lead, in consultation with the other. Screening of the mWave Project has been completed and a No Significant Effects Report (NSER) will be submitted to enable this assessment to be undertaken.

1.5.3 Water Framework Directive Assessment

- 1.5.3.1 As identified on the Marine Licence website² the area from the mean low water mark up to one nautical mile from shore, is protected under the Water Framework Directive (WFD). This requires that any licensed project or activity does not 'cause deterioration in a water body. The website goes on to confirm that all application (apart from Band 1 low risk activity applications) must be accompanied by a WFD assessment. As such a WFD assessment will be provided with the marine licence application.

1.5.4 Design and Access Statement

- 1.5.4.1 DAS have been required in Wales since 2009 for various types of planning applications. Initially DAS guidance stated that a DAS is required by legislation to accompany all planning applications (outline and full) excluding a few exceptions. However, since they were first introduced the guidance on when they are needed and what they should contain has been updated. The most recent Welsh Government Guidance³ issued in 2017, provides further clarification to assist planning authorities and developers.

² <https://naturalresources.wales/permits-and-permissions/marine-licensing/marine-licensing-and-the-water-framework-directive/?lang=en>

³ Welsh Government (2017) Design and Access Statements in Wales, Why, What and How.

- 1.5.4.2 Within the 2017 guidance it informs us that 'DASs were introduced to help ensure that both design quality and inclusive access are given sufficient consideration in the planning process. The DAS itself does not 'create' good design, rather it should demonstrate and clearly communicate the logical design process.' As such a DAS can be a valuable document in developing and explaining the concepts behind the design of new major developments, as well as ensuring that Local Authority and Welsh Government design quality objectives and planning policy are met.
- 1.5.4.3 The guidance goes on to state that 'It is a statutory requirement that certain applications for planning permission are accompanied by a DAS. Such planning applications will not be validated unless a DAS is provided'. A simple flow diagram helps determine whether a DAS is required as shown below (Figure 1.3).

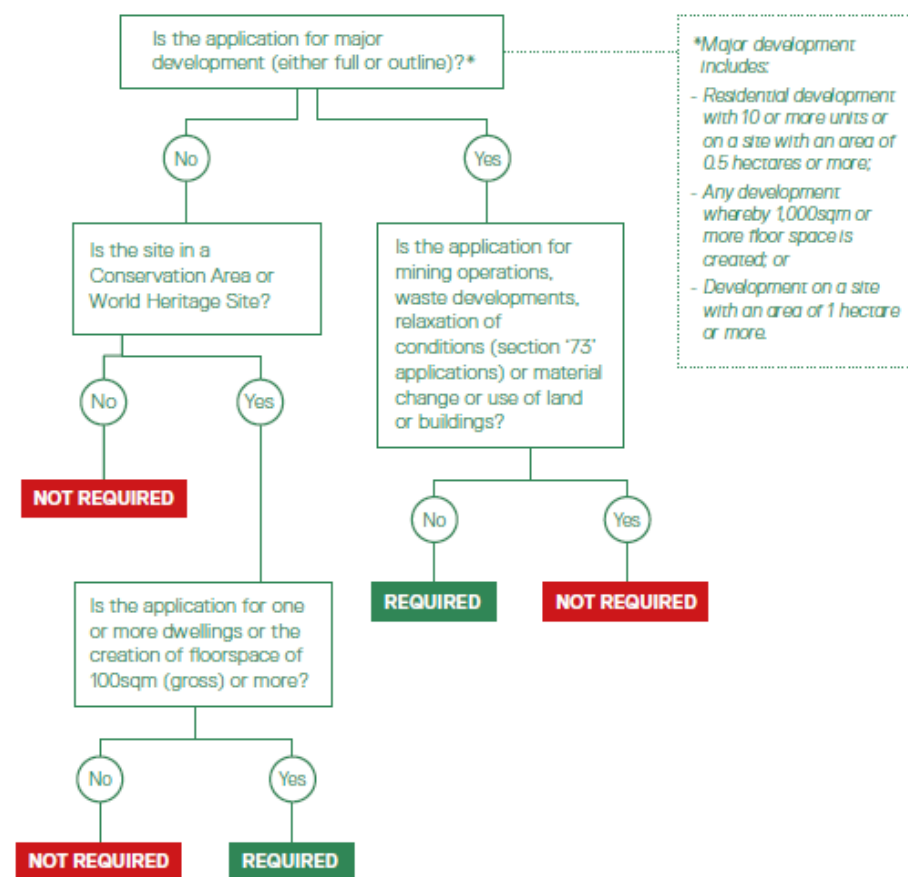


Figure 1.3 Flow diagram from Welsh Government DAS guidance

- 1.5.4.4 Whilst the decision has been made to prepare an ES in support of the various licences (Section 1.4), the proposed development area is less than 0.5ha and as such do not constitute a major development and as such a DAS is not required. Notwithstanding this, much of the information provided within the ES would be relevant to the contents of a DAS. For ease of reference, those chapters which are relevant to a DAS are identified in Table 1.2.

1.6 Structure of the Environmental Statement

- 1.6.1.1 The Environmental Statement has been structured to allow relevant environmental information to be easily accessible. The description of the project is provided in Chapter 2: Project Description. Information relating to the main alternatives considered during the evolution of the mWave project, including the site selection process for the temporary onshore works at East Pickard Bay is found within Chapter 3: Needs and Alternatives. Chapter 4 outlines the Environmental Assessment Methodology adopted for the EIA. Chapter 4 also provides a review of the Scoping Opinion received from PCNPA in relation to the onshore works provided in the RPS scoping document. In addition to this it provides a review of the offshore element of mWave in terms of the scoping response for the META project, where there is specific reference to META Site 8. Chapter 5 through to Chapter 17 contain topic by topic environmental information as outlined in Table 1.2. For ease of reference the assessment the marine element of the project has been addressed in chapters 5 to 15 and the onshore element of the project are assessed in Chapters 14 to 17. Note, whilst no impact is anticipated on the onshore archaeological resource through the installation methods proposed, a desk based assessment has been prepared and will be submitted with the planning application. Consideration of the potential effect of the control station and cable on West Pickard Camp Hill Fort is presented in Chapter 14 Seascape Landscape Assessment.
- 1.6.1.2 Figures and tables to accompany the text of the Environmental Statement are provided within the main body of each chapter as necessary. Appendices are provided after the main body of text and include specialist technical reports providing relevant background and technical information where appropriate. A Non-Technical Summary is provided as a precursor to this chapter.
- 1.6.1.3 Cumulative Impact Assessments (CIA), inter-related and trans-boundary effects are topic-specific and as such are given in each topic chapter separately.

Table 1.2: Structure of the Environmental Statement.

Structure of the Environmental Statement		Relevant to Offshore	Relevant to Onshore	Relevant to DAS
Chapter number	Chapter title			
	Non Technical Summary (NTS)	Yes	Yes	
Chapter 1	Introduction	Yes	Yes	
Chapter 2	Project Description	Yes	Yes	Yes
Chapter 3	Need and Alternatives	Yes	Yes	Yes
Chapter 4	Environmental Assessment Methodology	Yes	Yes	
Chapter 5	Coastal Processes	Yes		
Chapter 6	Underwater Noise	Yes		
Chapter 7	Benthic Subtidal and Intertidal Ecology	Yes		

Structure of the Environmental Statement		Relevant to Offshore	Relevant to Onshore	Relevant to DAS
Chapter 8	Fish and Shellfish	Yes		
Chapter 9	Marine Mammals	Yes		
Chapter 10	Marine Ornithology	Yes		
Chapter 11	Commercial Fisheries	Yes		
Chapter 12	Shipping and Navigation	Yes		
Chapter 13	Marine Archaeology	Yes		
Chapter 14	Seascape and Landscape	Yes	Yes	Yes
Chapter 15	Other Users	Yes	Yes	Yes
Chapter 16	Onshore Geology, Hydrology and Land Quality		Yes	Yes
Chapter 17	Terrestrial Ecology		Yes	Yes

Appendices	
Appendix 2.1	Noise assessment
Appendix 2.2	Draft Environmental Mitigation and Monitoring Plan
Appendix 2.3	Environmental Management Plan table of contents
Appendix 3.1	Policy and Legislation
Appendix 7.1	SEACAMS Backscatter Data
Appendix 8.1	Fish and Shellfish Survey Data
Appendix 9.1	Marine Mammals– WWBIC Sightings Data
Appendix 9.2	Marine Mammals – UK Cetacean Distribution
Appendix 10.1	Marine Ornithology - Policy and Legislation
Appendix 10.2	Marine Ornithology - Summary of Desk Study Data
Appendix 11.1	Commercial Fisheries Landings Data
Appendix 13.1	Marine Archaeology
Appendix 17.1	Phase 1 Survey Habitat Map and Notes
Appendix 17.2	Breeding Birds
Appendix 17.3	NVC Quadrat Locations and Results
Appendix 17.4	Chough Survey Winter 2018/2019

1.7 Further information

1.7.1 Environmental Statement submission

1.7.1.1 This Environmental Statement has been submitted as part of consent applications for the proposed mWave project. The application has been submitted to the following regulatory authorities for associated consent/licence applications:

- Natural Resources Wales (NRW) (Permitting Services); and
- Pembrokeshire Coast National Park Authority (Planning Department)

1.7.1.2 The Licence applications, Environmental Statement and NTS can be viewed at the following address:

Pembrokeshire Coast National Park Authority
Llanion Park
Pembroke Dock
Pembrokeshire
Wales
SA72 6DY

Details can be found online at
http://planning.pembrokeshirecoast.wales/agile_pcnpa/apas/run/wchvarylogin.display

1.7.1.3 Information on the marine licence application can be obtained from <https://naturalresources.wales/permits-and-permissions/marine-licensing/applications-received-and-determined/?lang=en>. Further information on the marine licence application can be obtained from Natural Resources Wales Permitting Service at permittingconsultations@naturalresourceswales.gov.uk

1.7.1.4 An electronic copy (CD Rom) for a cost of £10 from Bombora, by contacting: Joanna@bomborawave.com

1.7.1.5 All comments on the Environmental Statement should be issued to the relevant regulatory authority at the address stated in paragraph 1.7.1.2 and at the website identified in paragraph 1.7.1.3.

1.7.2 Publicising the Environmental Statement

1.7.2.1 In accordance with the EIA Regulations, and as part of the marine licence application process, Bombora will publicly advertise the availability of the mWave project licence applications, Environmental Statement and Non-Technical Summary (NTS) by placing a notice in the local newspaper, the Western Telegraph, which has a wide circulation within the vicinity of the mWave project. In accordance with the EIA Regulations this notice will be published on two successive weeks.

1.8 References

Department for Business Energy and Industrial Strategy (March 2019) Decommissioning of Offshore Renewable Energy Installations Under The Energy Act 2004.

Department of Energy and Climate Change (2011) Overarching National Policy Statement for Energy (EN-1). Presented to Parliament pursuant to section 5(9) of the Planning Act 2008.

Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the Assessment of the Effects of Certain Public and Private Projects in the Environment (codification).

Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the Assessment of the Effects of Certain Public and Private Projects in the Environment.

HM Government; Northern Ireland Executive; Scottish Government; Welsh Assembly Government (2011) UK Marine Policy Statement. Accessed https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69322/pb3654-marine-policy-statement-110316.pdf [19 May 2019]

RPS (2018) Marine Energy Test Area (META), Environmental Impact Assessment. Scoping Report.

The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) (2007 SI No. 1518) Accessed <http://www.legislation.gov.uk/ukSI/2007/1518/contents/made> [19 May 2019]

The Marine Works (Environmental Impact Assessment) (Amendment) Regulations 2017 (2017 SI No. 588) Accessed at <http://www.legislation.gov.uk/ukSI/2017/588/contents/made> [19 May 2019]