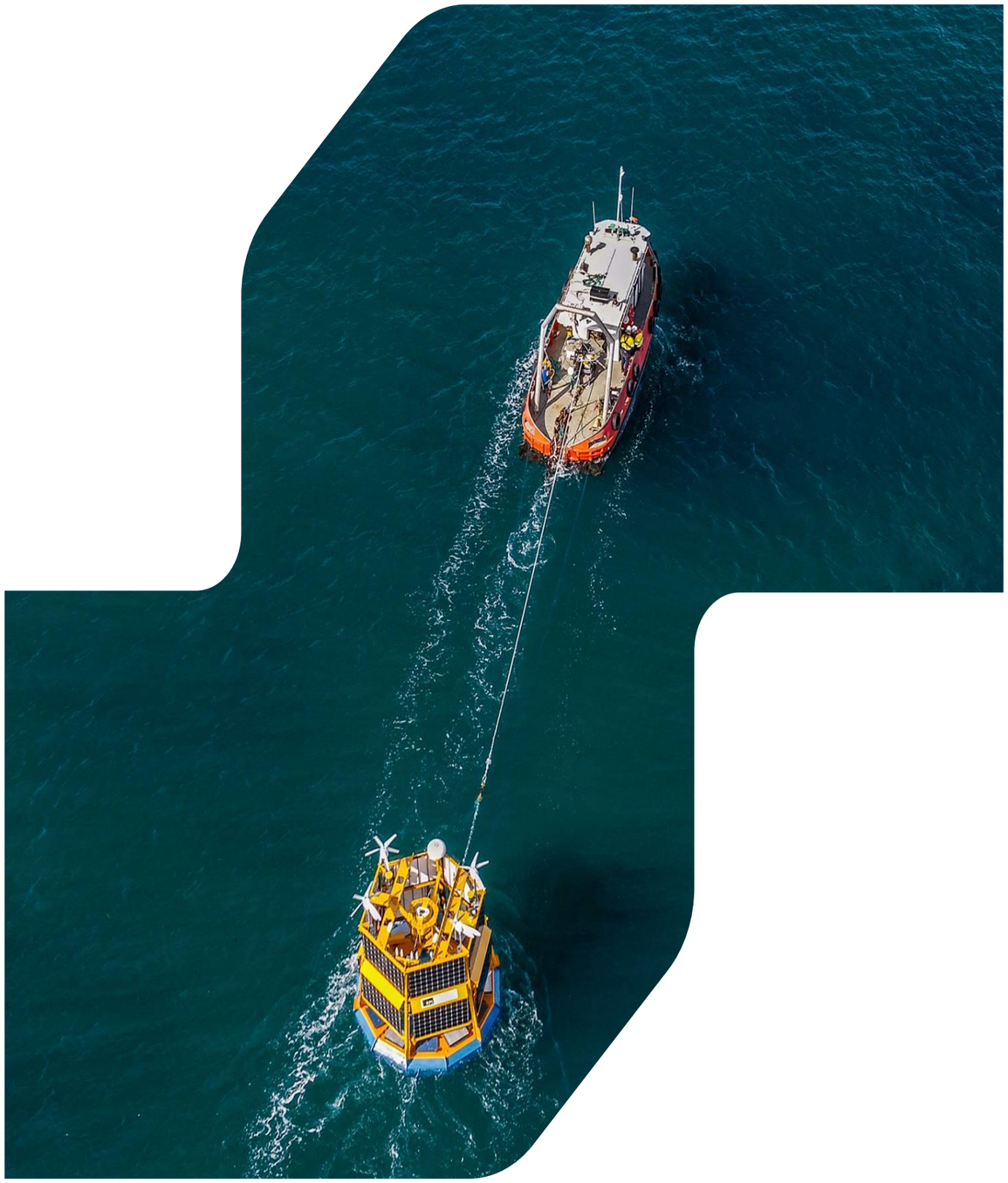
MARINE ENERGY WALES

MARINE ENERGY TEST AREA (META)

Environmental Impact Assessment

Chapter 1:
Introduction



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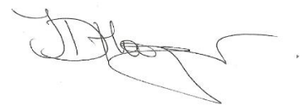

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Glossary

Term	Definition
Cumulative impact	Impacts that result from changes caused by other past, present or reasonably foreseeable actions together with the META project, that have not already been considered as part of the baseline.
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.
EIA Regulations	For the purposes of the META project, the EIA Regulations reference to: • The Electricity Works (Environmental Impact Assessment (England and Wales) Regulations 2017 • The Marine Works (Environmental Impact Assessment Regulations 2007 (the Marine Works Regulations) (as amended 2017) • The Town and Country Planning (EIA) (Wales) Regulations 2017
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).
Inter-related effects	Multiple effects on the same receptor arising from the META project. These occur either where a series of the same effect acts on a receptor over time to produce a potential additive effect or where a number of separate effects, such as noise and habitat loss, affect a single receptor, for example marine mammals.
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.
Pembrokeshire Coastal Forum CIC	A community interest company that works to protect the coast and marine environment in Pembrokeshire for current and future generations.
Project Description	A summary of the engineering design elements of the META project.
Receptor	A component of the natural or man-made environment that is affected by an impact, including people.
Sensitivity	The extent to which a receptor can accept a change of a particular type and scale.
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).
The META project	Warrior Way (site 6); Dale Roads (site 7); and East Pickard Bay (site 8).
Transboundary	Crossing into other European Economic Association (EEA) States.

Acronyms

Acronym	Description
BEIS	Department for Business, Energy and Industrial Strategy
cSAC	candidate SAC
CIA	Cumulative Impact Assessment
CIC	Community Interest Company
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 Area
MEW	Marine Energy Wales
MHPA	Milford Haven Port Authority
MHWS	Mean High Water Springs
MHUA	Milford Harbour Users Association
ML	Marine Licence
MLWS	Mean Low Water Springs
MMO	Marine Management Organisation
MOD	Ministry of Defence
MWL	Marine Works Licence
NIP	National Infrastructure Planning
NRW	Natural Resources Wales
NRW-PS	Natural Resources Wales Permitting Services

Acronym	Description
NRW – species licencing team	Natural Resources Wales Species Licencing Team
OREI	Offshore Renewable Energy Installation
PCC	Pembrokeshire County Council
PCF	Pembrokeshire Coastal Forum
PCNPA	Pembroke Coast National Park Authority
PDZ	Pembrokeshire Demonstration Zone
RNLI	Royal National Lifeboat Institution
ROV	Remotely operated vehicle
S.36	Section 36
SAC	Special Area of Conservation
SoCE	Statement of Community Engagement
SoS	Secretary of State
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
TCE	The Crown Estate
WFA-CPC	Welsh Fishermen's Association / Cymdeithas Pysgotwyr Cymru

Units

Unit	Description
Ha	Hectares
km	Kilometres
m	Metres
m/s	Metres per second
m^2	Metres squared

1. INTRODUCTION

1.1 Introduction

1.1.1.1 This Environmental Statement has been prepared by RPS on behalf of Marine Energy Wales (MEW), a Pembrokeshire Coastal Forum (PCF) Community Interest Company (CIC) led project (the Applicant) to support licence/consent applications for the Marine Energy Test Area (META) project. The Environmental Statement reports on the findings of the Environmental Impact Assessment (EIA) process for the META project (Phase 2) and accompanies the applications for a Marine Licence (ML), a Marine Works Licence (MWL) and Town and County Planning Permission for Warrior Way (site 6). This chapter introduces the project, summarises the consents and/or licences that are required for the proposed works, and outlines the content of the EIA that has been produced to support the consent and/or licence applications.

1.2 Purpose of this chapter

1.2.1.1 The primary purpose of the Environmental Statement is to support the marine consent applications for the META project. This chapter provides the background to the META project, outlines the consents and licences that will be required for the META project, and sets out the structure of the Environmental Statement.

1.3 Consultation

1.3.1.1 A summary of the key issues raised during consultation relevant to chapter 1: Introduction is outlined below in Table 1.1, together with how these issues have been considered in the production of this Environmental Statement chapter or how the Applicant has had regard to them.

Table 1.1: Summary of key consultation issues raised during consultation activities undertaken for the META project relevant to the Project Description

Date	Consultee and type of response	Issue raised	Response to issue raised and/or where considered in this chapter
28 March 2019	NRW – Scoping Opinion	The EIA must be undertaken by a competent person and the ES must include a competent expert statement.	Appendix 1.1: Statement of Experience, outlines the competence of the EIA authors
28 March 2019	NRW – Scoping Opinion	Page A-iii mentions licence applications that are required for the project. Consideration should be given to whether any other licences or consents are required, such as safety zone consent under the Energy Act, a Flood Risk Activity Permit, SSSI consent or a Species licences. It should be noted that some of these consents can be administered through the Marine Licence application.	All consents and licences required for the META project are listed in this chapter (chapter 1: Introduction) in section 1.6.
28 March 2019	NRW – Scoping Opinion	The text relating to responsibility for EPS licences is incorrect. NRW has been responsible for administering EPS licences in inshore waters (within 12nm) since it was formed in 2013. In April 2018 NRW obtained responsibility for EPS licensing in the Welsh offshore area. Also, EPS licences are handled by the Species Licensing Team, not Marine Licensing Team. This should be corrected in the ES.	The requirement for EPS licencing is outlined in section 1.6 of this chapter (chapter 1: Introduction).
28 March 2019	NRW – Scoping Opinion	Section 3.2.2 suggests that a separate Marine Licence application will be submitted for each of the three META phase 2 sites. It is unclear why separate licences are proposed and we would recommend that all three of the phase 2 sites are submitted on one marine licence application.	Following further consultation with NRW-PS, a single Marine Licence application will be submitted for all META phase 2 sites. This is outlined in section 1.6.2, paragraph 1.6.2.7.
28 March 2019	NRW – Scoping Opinion	As set out in paragraph 1.2 above, there are other licences/consents that may be required for the project. The EIA/ES must include a full list of the licences/consents required for the project.	All of the licences and/or consents that are considered to be required for the META project are outlined in 1.6.
28 March 2019	NRW – Scoping Opinion	The reference to the 2011 decommissioning guidance notes is welcomed. It should be noted that these guidance notes have recently been revised. The Offshore Renewable Decommissioning Guidance Notes for Industry (updated 2019) is now available on the GOV.UK website; https://www.gov.uk/government/publications/decommissioning-offshore-renewable-energy-installations The EIA/ES must consider the relevant sections of the updated guidance. We recommend that you discuss the decommissioning of the META site(s) with the Offshore Renewables Decommissioning Team in BEIS at the earliest opportunity to ensure you are aware of any new requirements affecting test centres and the offshore renewables sector more generally.	The approach to decommissioning is outlined in chapter 1: Introduction section 1.6.5 and policy, legislation and guidance pertaining to decommissioning is outlined in Appendix 3.1. Consultation with BEIS in relation to decommissioning has taken place and is summarised in the META Stakeholder engagement report.

1.4 The project

1.4.1.1 The proposed META project, being developed under MEW, forms part of Pembroke Dock Marine, a £76 million project to develop a world class centre for marine energy development, fabrication, testing and deployment, in Pembrokeshire. It is one of 11 projects included in the Swansea Bay City Deal signed in 2017. The four pillars of the Pembrokeshire Dock Marine Project include:

- The META Project (being developed under MEW);
- Marine Energy Engineering Centre of Excellence (MEECE) (an Offshore Renewable Energy Catapult project);
- Pembroke Port managed and operated by Milford Haven Port Authority (MHPA); and
- Pembrokeshire Demonstration Zone (PDZ) (being developed by WaveHub Ltd.).

1.4.1.2 MEW aim to provide a suite of offshore marine energy test sites within, and in proximity to, the Milford Haven Waterway (subsequently referred to as 'the Waterway'), to facilitate the testing and development of marine energy projects. This proposal, known as the Marine Energy Test Area project (the META project) will provide marine renewable energy device developers with pre-consented testing sites, which will reduce the consenting burden on these developers. The aim of the META project is therefore to provide a series of pre-consented, non-grid connected, marine energy test areas that will allow for the deployment and testing of devices, components and subassemblies, and ancillary activities and equipment, in support of marine energy testing. Thereby de-risking marine energy projects prior to larger scale or array deployments.

1.4.1.3 The key aims of the META project are to:

- Improve capability and capacity in wave, tidal and wider offshore renewables engineering in the region;
- Provide early stage device developers with a local, easy access facility for device, equipment, instrument and support structure, and deployment technique testing, which will de-risk future deployments and provide critical data for further device development;
- Support marine energy device developers, supply chain companies and researchers, in developing new products and services, and to provide a showcase for the commercialisation of these products and services;
- Provide a focal point for marketing the marine energy cluster in Pembrokeshire, increasing the area's attractiveness as a base for device and project developers currently outside Wales;
- Support job retention and creation in Pembrokeshire in terms of supply chain clustering and diversification;
- Act as a link to the Wave and Tidal Demonstration Zones proposed in Welsh waters[1];
- Support Enterprise Zone initiatives; and
- Provide a unique offering in the UK test centre network.

1.4.1.4 The over-arching META project proposes eight sites, three of which require EIA for activities to be enabled. These are Warrior Way (site 6, see paragraph 1.4.3.2), Dale Roads (site 7, see paragraph 1.4.3.4) and East Pickard Bay (site 8, see paragraph 1.4.3.6). These three sites are henceforth called "the META project". The remaining five sites are not considered to require an EIA due to their location, scale, nature of activities proposed, and are therefore not included in the EIA. These remaining sites are considered under a separate set of consent and licence applications; which are accompanied by an Environmental Supporting Information report.

1.4.2 Proposed activities

1.4.2.1 Detailed information on proposed activities can be seen in chapter 2: Project Description. The proposed META project will support the following device testing activities:

- Scale wave device testing;
- Scale tidal device testing;
- Full scale wave device testing;
- Micro tidal device testing;
- Testing of Remotely Operated vehicle (ROV) or other monitoring equipment;
- Site preparation methodologies;
- Decommissioning methodologies;
- Salvage methodologies; and
- Tow, float and mooring solution testing for floating offshore wind technology.

1.4.3 Project location

1.4.3.1 The META project is located in the inshore waters of Pembrokeshire. Warrior Way (site 6) and Dale Roads (site 7) are located within the Waterway, and East Pickard Bay (site 8) is located on the south-eastern boundary of the Waterway, 500 m west of the Mean High-Water Spring (MHWS) at Freshwater West Bay. The site locations are shown in Figure 1.1.

[1] In 2014 The Crown Estate announced that they had agreed seabed rights for six new wave and tidal current demonstration zones, which for the first time would enable locally-based organisations to manage and sub-let parts of the seabed to a range of wave and tidal stream developers. The aim of these is to accelerate technology development and commercialisation. Of these six zones, two are in Wales: The West Anglesey Demonstration Zone managed by Morlais, and the Pembrokeshire Demonstration Zone managed by Wave Hub Ltd.

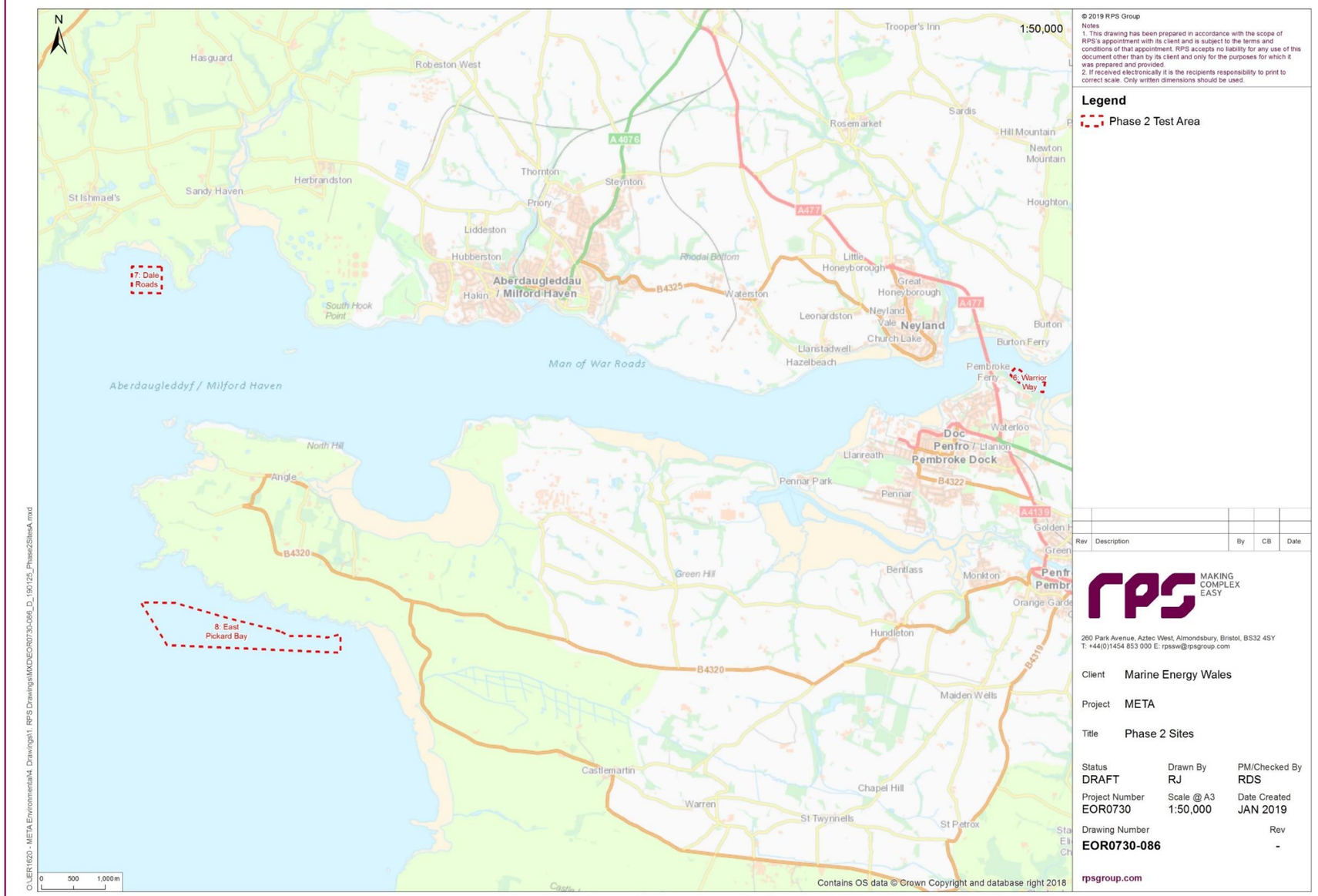

Figure 1.1: The META project site locations.

META site 6: Warrior Way

1.4.3.2 Warrior Way (site 6) is located within the Waterway offshore from the Pembrokeshire Science and Technology Park, south east of Pembroke Ferry, and at the mouth of the Cosheston Pill. The site supports the greatest tidal resource in the Milford Haven Estuary (1.2 m/s) and has a depth of between 16 and 19 m. The Warrior Way site (site 6) encompasses an area of 93,000 m^2 (9.3 Ha) and lies entirely within the Pembrokeshire Marine Special Area of Conservation (SAC), in close proximity to habitats identified as "Nationally Important Intertidal Habitats", and immediately adjacent to the Milford Haven Waterway Site of Special Scientific Interest (SSSI) designated for a variety of natural features including, estuaries, marine habitats, species of wildfowl and waders, and otter. Figure 1.2 illustrates the location and extent of Warrior Way (site 6) in relation to the surrounding Milford Haven and Pembrokeshire and environmental designated sites.

1.4.3.3 The site sits within a busy area of the Waterway, and therefore clear demarcation of project testing activities will be implemented to ensure minimal interference with existing sea users.

META site 7: Dale Roads

1.4.3.4 Dale Roads (site 7) lies outside the Dale shelf anchorage within the Waterway to the west of Great Castle Head, and south of St Ishmael's. It supports depths of between 8 and 12 m and benefits from a significant wind and wave fetch from the south and southwest. The site encompasses an area of 195,565 m^2 (19.56 Ha) and lies entirely within the Pembrokeshire Marine SAC designated for grey seal, marine habitats, coastal lagoons, submerged or partially submerged sea caves, otter and species of migratory fish, and the West Wales Marine SAC (SAC) proposed for harbour porpoise. The coast at Dale Roads is part of the Milford Haven Waterway SSSI designated for a variety of natural features including, estuaries, marine habitats, species of wildfowl and waders, and otter.

1.4.3.5 Figure 1.3 illustrates the location and extent of Dale Roads (site 7) in relation to the Waterway and designated sites. Dale Roads (site 7) benefits from good access and has previously supported wave device developer testing.

META site 8: East Pickard Bay

1.4.3.6 East Pickard Bay (site 8) overlaps to some extent with the Waterway. It lies immediately south of Sheep Island and runs south-eastward parallel to the coast towards Freshwater West Bay.

1.4.3.7 The site is exposed to a good wave resource benefiting from a 200 km fetch from the prevailing wind direction and has a water depth of between 10 and 29 m. The East Pickard Bay site (site 8) encompasses an area of 1,230,000 m^2 (123 Ha) and lies entirely within the Pembrokeshire Marine SAC designated for grey seal, marine habitats, coastal lagoons, submerged or partially submerged sea caves, otter and species of migratory fish, and the West Wales Marine cSAC proposed for harbour porpoise. Castlemartin Coast Special Protection Area (SPA) lies inland to the north east of East Pickard Bay (site 8) as does the Limestone Coast of South West Wales SAC. The site also lies adjacent to a Ministry of Defence (MOD) Danger Area.

1.4.3.8 Figure 1.4 illustrates the location and extent of the East Pickard Bay META marine testing site (site 8) in relation to the surrounding area and designated sites.

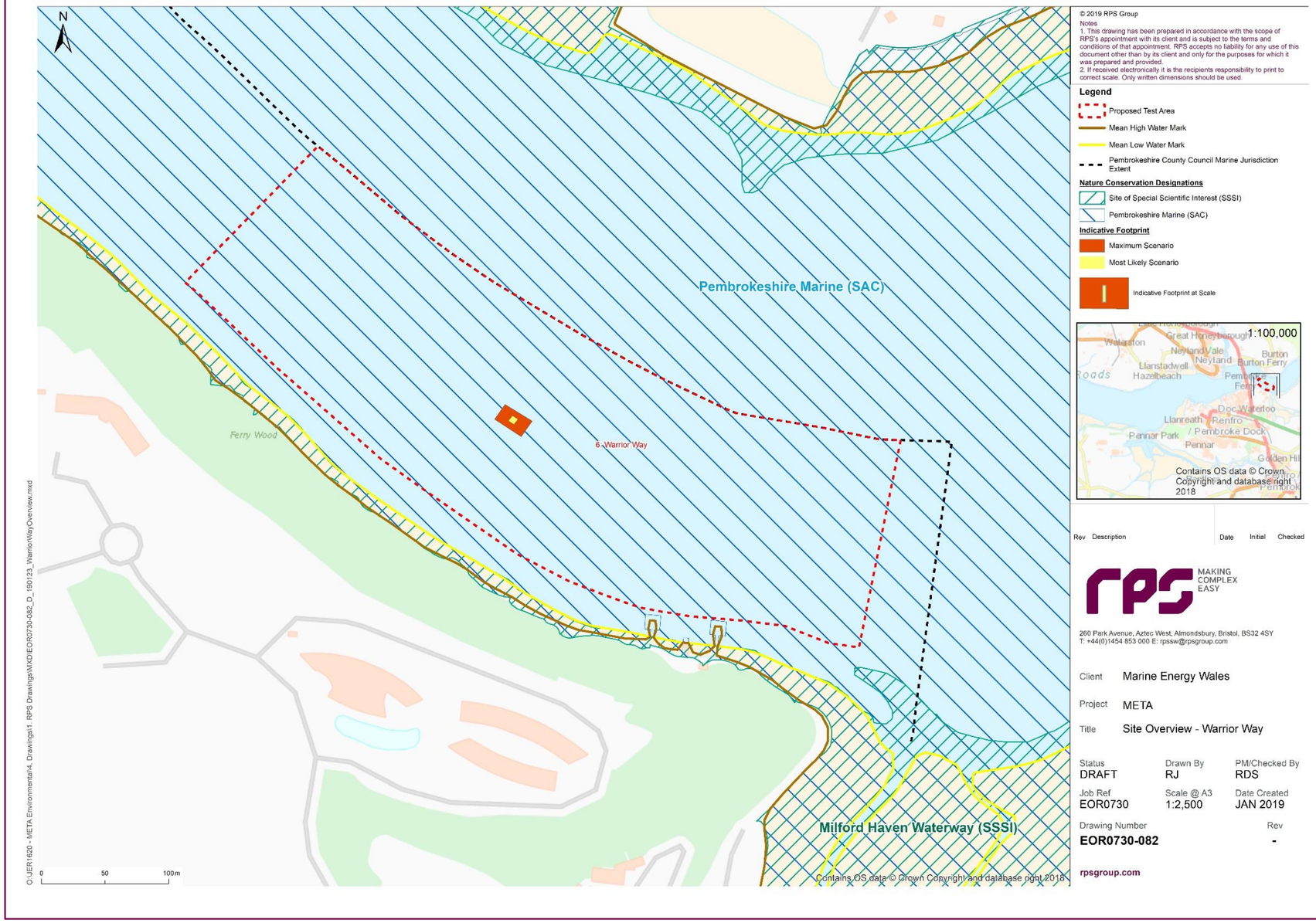

Figure 1.2: Location of Warrior Way (site 6).

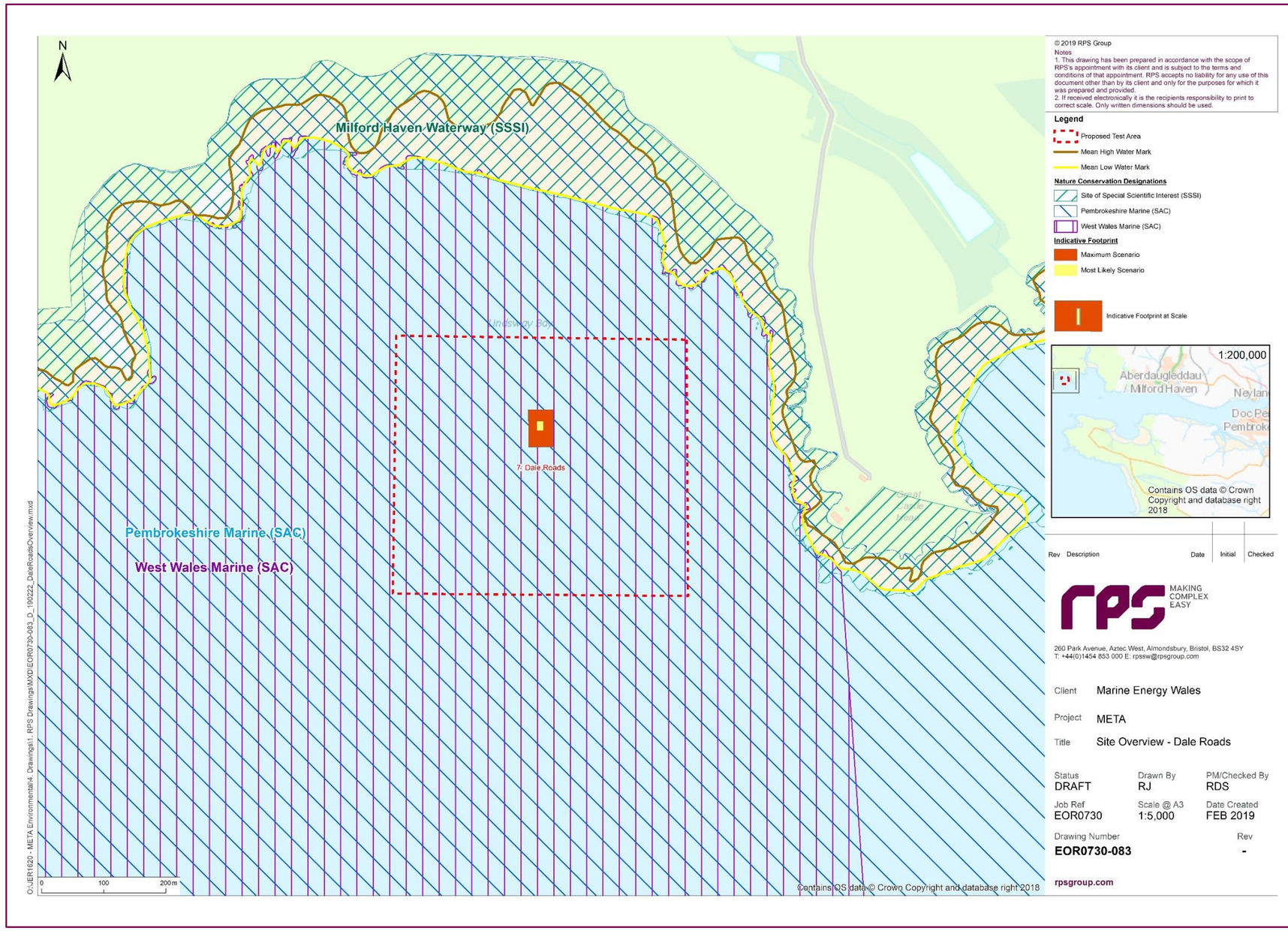

Figure 1.3: Location of Dale Roads (site 7).

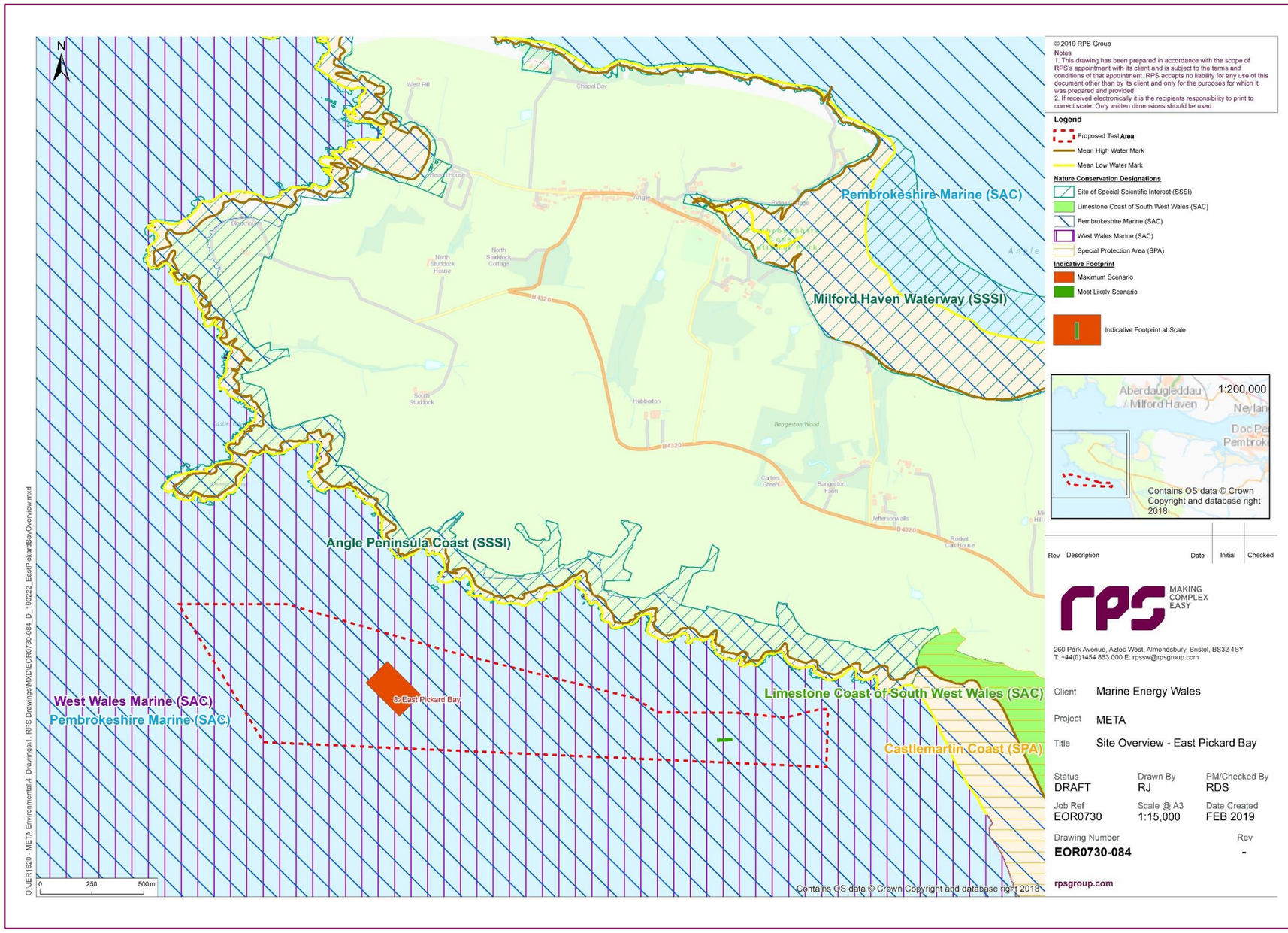

Figure 1.4: Location of East Pickard Bay (site 8) (consent for two berths at East Pickard Bay is being sought).

1.5 Public consultation

1.5.1.1 As part of the consultation process, the Applicant has engaged with the local community in order to inform local people about the META project, to explain what the purpose the META project and its likely effects on the receiving environment, and to take on board any concerns or issues raised. A summary of pre-application public consultation methods carried out is set out below:

- Information provided on the MEW website;
- Information provided on the Pembrokeshire Coastal Forum (PCF) website; and
- Public exhibitions.

1.5.1.2 The following public exhibitions have taken place to support engagement with the public on the META project:

- Castlemartin community café (4 December 2018);
- Angle village hall (5 December 2018);
- Dale Coronation hall (6 December 2018);
- The Pembroke Dock Sunderland Trust (11 December 2018); and
- Milford Haven Cedar Court (12 December 2018).

1.5.1.3 The following groups attended the events:

- Dwr Cymru Welsh Water;
- Llanion Cove (outdoor adventure centre);
- Pembrokeshire Coastal National Park Authority (PCNPA);
- National Trust;
- Owen & Owen (chartered surveyors);
- Royal National Lifeboat Institute (RNLI);
- Transition Bro Gwaun (community initiative);
- Milford Harbour Users Association (MHUA);
- MEECE;
- MHPA;
- Leask Marine (marine contractors);
- Maritime and Coastguard Agency (MCA); and
- Welsh Fishermen's Association / Cymdeithas Pysgotwyr Cymru (WFA-CPC).

1.5.1.4 A Statement of Community Engagement (SoCE) has been submitted with the application providing further details of the findings of public consultation (Appendix 1.2: Statement of Community Engagement). The main issues that were identified throughout the consultation process included:

- Demarcation of infrastructure;
- Impact on shipping and navigation, particularly small crafts and boat users;
- Restrictions and/or exclusion zone with particular respect to:
  - Fishing;
  - Recreational shipping; and
  - Sailing.
- Visual and landscape impacts;
- Coastal processes;
- Decommissioning; and
- Environmental impacts.

1.5.1.5 These comments have been taken into account by the Applicant in the preparation of the consent/licence application and, where relevant, in the EIA process.

1.6 Consents and licences required for the META project

1.6.1.1 Marine licensing and/or consenting is a key pathway to protecting the marine environment from activities that could be detrimental to the habitats, species and natural processes occurring in the marine environment.

1.6.1.2 The following sections outline the consenting and/or licensing requirements that are relevant to proposed META activities, and Table 1.2 summarises the consents and licences for which an application will be submitted in relation to the META project.

1.6.1.3 The Welsh Planning Inspectorate have advised the Applicant (Welsh Government Planning Inspectorate – 10/04/19 file ref 190410 MEW PINS S36 Meeting Minutes) that as each of the three META project sites will support device testing of less than 1 MW, no Section 36 (S.36) under the Electricity Act will be required. As a result, MEW do not propose to apply for a S.36 licence for the META project.

1.6.2 Marine and Coastal Access Act (MCAA) Marine Licence

1.6.2.1 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.

1.6.2.2 However, there are exceptions to these licensable activities under the "Marine Licensing (Exempted Activities) (Wales) Order, 2011. Relevant exempt activities (under Article 4, Part 3 of the Order) include:

- Harbour Authorities (within existing boundaries of the works); and
- Deposit of any scientific instrument or associated equipment in connection with any scientific experiment or survey unless "it is (a) a plan or project likely (either alone or in combination with other plans or projects) to have a significant effect on a European site; or (b) it is likely to have an effect on a Ramsar site.

1.6.2.3 As proposed META activities include the potential to deposit infrastructure in the sea or on or under the seabed, a ML is required for certain activities/sites.

1.6.2.4 NRW-PS categorise projects into three Bands of application as follows:

Band 1

1.6.2.5 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

1.6.2.6 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.

1.6.2.7 The META project requires a Band 3 ML application. A single Band 3 Marine Licence application will be submitted for all META phase 2 sites (Warrior Way (site 6), Dale Roads (Site 7), and East Pickard Bay (site 8)).

1.6.3 Marine Works Licence (Milford Haven Port Authority)

1.6.3.1 Milford Haven Port Authority (MHPA) administer MWLs under the Milford Haven Conservancy Act 1983 in pursuance of Section 18 - Licence of Works, or Section 19 - Licence to Dredge. Permission is required from MHPA to construct, alter, renew or extend any works in the harbour on, under or over tidal waters, or land below the level of high water. This requires a MWL application to be submitted to the MHPA.

1.6.3.2 The META project requires a MWL. A single MWL application will be submitted for all META phase 2 sites (Warrior Way (site 6), Dale Roads (Site 7), and East Pickard Bay (site 8)).

1.6.4 Planning permission (Pembrokeshire County Council)

1.6.4.1 Pembrokeshire County Council (PCC's) jurisdiction under the Town and Country Planning Act (1990) extends beyond mean low water to the middle of the Waterway in the vicinity of Pembroke Dock. Consequently, as PCC has indicated that the proposal would constitute a material change of use, Warrior Way (site 6) will require full planning permission.

1.6.4.2 A single planning application for the proposals at Warrior Way (site 6) will be submitted to PCC and will be accompanied by this Environmental Statement.

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

1.6.5.1 Decommissioning of devices capable of generating power is governed by Sections 105 to 114 of the Energy Act 2004 ("the Act", as amended by the Energy Act 2008). Responsibility for the administration and management of decommissioning activities in Wales lies with the UK Department for Business, Energy and Industrial Strategy (BEIS). Guidance provided by BEIS (BEIS, 2019) has been reviewed and used to inform the proposed META approach to decommissioning.

1.6.5.2 When a renewable energy developer has been granted a ML, a Notice to Decommission (otherwise known as a Section 105 notice) is issued to the developer. This places a requirement on the developer to produce a Decommissioning Programme. Guidelines (DECC, 2011) are available regarding the production of this document.

1.6.5.3 Decommissioning Programmes are subject to two rounds of consultation. Once the consultation rounds have been completed, the Decommissioning Programme is approved by BEIS and, where necessary, financial securities are put in place. It is best practice to have the Decommissioning Programme approved prior to commencement of installation works.

1.6.5.4 BEIS 2019 guidance specifies decommissioning arrangements of test centres.

"For the purposes of this guidance, an 'offshore renewable energy test centre' is a discrete location where third-party owners of demonstration Offshore Renewable Energy Installation (OREIs) can plug their devices to central infrastructure (normally including a berth, cables, data centre, and in some cases a grid connection to the shore) in order to evaluate their technical capabilities. BEIS requires offshore renewable energy test centres in England and Wales to take responsibility for any central infrastructure and for the decommissioning of their tenants' infrastructure. Test centre owners are required to ensure that this is undertaken in line with all relevant legislation, licences and permits."

1.6.5.5 The guidance advises that test centre owners should put in place arrangements to ensure users of the test centre undertake responsible decommissioning of their technology and any associated infrastructure and that it is expected that test centres will put in place arrangements for decommissioning of tenants' infrastructures, including appropriate financial and contractual arrangements.

1.6.5.6 The guidance also goes on to state that:

"BEIS will not have a role in approving tenant decommissioning programmes. Where financial security has not been taken and an operator/developer of a test device fails to decommission, BEIS expects the owner of the test centre to pay for the removal of any assets on its site at the end of the operation period. Owners of test centres should submit decommissioning programmes to BEIS for their central infrastructure. This should also set out how they will ensure that the overall site is returned to its natural state at the end of its operational life (including removal of any remaining tenant infrastructure) and how they will manage decommissioning or repowering of their tenants' devices."…. "Test centres should biannually send BEIS updates on tenants at the site and the measures in place to prevent them leaving behind unsecured decommissioning liabilities."

1.6.5.7 The Applicant will provide a decommissioning programme that includes both decommissioning of the META project infrastructure, and how the Applicant will ensure decommissioning of device developers' technology and infrastructure following the guidance as set-out in BEIS, 2019.

1.6.5.8 A ML for removal is required to be approved prior to decommissioning works commencing. Developers have tended to apply for a ML for installation, testing and operation but not decommissioning, and therefore required another licence to remove the device (when not for maintenance). More recently, developers have been applying for installation, operation and decommissioning in a single 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.

1.6.5.9 META propose to include decommissioning along with installation and operation, in a single ML application to NRW-PS, to ensure an efficient and thorough application. Detailed decommissioning methods will be finalised with NRW-PS prior to decommissioning commencing.

1.6.6 Crown Estate Lease (Crown Estate)

1.6.6.1 Under the Crown Estate Act (1961), the Crown Estate (TCE) own the foreshore and seabed out to a distance of 12 nm, 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.

1.6.6.2 As the META project may include placing of infrastructure on the seabed, an Agreement for Lease will be required from TCE for the META project.

1.6.7 European Protected Species Licence (NRW)

1.6.7.1 The Conservation of Habitats and Species Regulations 2017, known as the 'Habitats Regulations' transposes requirements of the European Habitats Directive (92/43/EEC) on the conservation of natural habitats and of wild flora and fauna in to UK law. This includes animals whose natural range includes any area of the UK, and animals which are included in Annex IV of the Directive and which are considered to be species of European Community interest and in need of strict protection (European Protected Species (EPS)). Within Welsh waters the following EPS are known to occur:

- Cetaceans (whales, dolphins and porpoises);
- marine turtles;
- otter; and
- common sturgeon.

1.6.7.2 Of the cetacean species occurring within UK waters, the following species are known to occur in Welsh waters:

- Harbour porpoise (*Phocoena phocoena);*
- Bottlenose dolphin (*Tursiops truncatus);*
- Short-beaked common dolphin (*Delphinus delphis);*
- Risso's dolphin (*Grampus griseus); and*
- Minke whale (*Balaenoptera acutorostrata).*

1.6.7.3 The information provided in this section is focused on marine EPS licensing in Wales and is not a comprehensive review of their ecology or the law.

1.6.7.4 Under the Conservation of Habitats and Species Regulations 2017, it is an offence to deliberately or recklessly capture, injure or kill an EPS, or deliberately disturb wild animals of EPS.

1.6.7.5 NRW-species licencing team issues licences under Regulation 55 of the Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017, to allow activities that would otherwise constitute an offence under the Conservation of Habitats and Species Regulations 2017, to be carried out.

1.6.7.6 Some device-specific deployments or activities associated with META sites have the potential to cause an offence under the Regulations, therefore there may be a requirement to obtain a licence to disturb some species of EPS from NRW-species licencing team, for some device-specific activities. MEW propose to support device developers in obtaining EPS licences should these be deemed necessary for device-specific deployments. They will not seek to obtain an EPS licence for the META project, but will support device-developers in liaising with NRW – species licencing team on a device-specific basis.

1.6.8 Safety Zone Consent (Energy Act)

1.6.8.1 The Energy Act 2004 (Section 95 and Schedule 16) sets out requirements for applying for safety zones around or adjacent to OREI structures, with new regulations The Electricity (Offshore Generating Stations) (Safety Zones) (Applications Procedures and Control of Access) Regulations 2007 providing more clarity on the requirements for applicants and interested parties. A Safety Zone licence application will be made, following guidance set out in DECC (2011). The application will draw on the information presented within chapter 12: Shipping and Navigation and will consider the risks of devices deployed in the META test sites to navigation within and around Milford Haven. The Safety Zone Licence will be drafted in consultation with the MCA and MHPA.

1.6.9 Flood Risk Activity Permit

1.6.9.1 Under the Environmental Permitting Regulations (England and Wales) 2016, a Flood Risk Activity Permit (FRAP) may be required for any works in, over, under or near a main river or flood defence (including a sea defence), or within a flood plain, to ensure that the activities proposed do not cause a risk of flooding or make an existing flood risk worse. A permit is also required to ensure that proposed works do not interfere with flood risk management assets or adversely affect the local environment, fisheries or wildlife (NRW, 2016).

1.6.9.2 NRW Flood Risk Analysis department have confirmed that the META project does not require an FRAP for any activities covered by a Marine Licence. The Applicant therefore do not intend to apply for an FRAP for the META project.

1.6.9.3 Following stakeholder engagement and examination of available guidance and legislation, Table 1.2 below summarises the consents that are considered to be required for each proposed META site; noting that the Applicant proposes to obtain a single consent and/or licence of each type required across all three sites, i.e. for the META project as a whole.

Table 1.2: Summary of the META project consenting and licensing requirements.

Site Number	META site	Consent Requirements			
		Marine Works Licence	Marine Licence	Crown Estate Lease/ SWL	Town and Country Planning
6	Warrior Way	Y	Y (3)	Lease	Y (PCC)
7	Dale Roads	Y	Y (3)	Lease	N
8	East Pickard Bay	Y	Y (3)	Lease	N

1.7 Statutory framework and purpose of the Environmental Statement

1.7.1 Purpose of EIA

1.7.1.1 EIA is a means of 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 (see section 1.5 for consents and/or licences required for the META project).

1.7.2 The EIA Directive

1.7.2.1 The legislative framework for EIA is set by European Directive 2011/92/EU, as amended by Directive 2014/52/EU (collectively referred to as the EIA Directive). Directive 2014/52/EU entered into force on 15 May 2014. Member states transposed Directive 2014/52/EU requirements into national law on 16 May

2017, setting out arrangements for a transitional period from the regime laid down by Directive 2011/92/EU.

1.7.3 The EIA Regulations

1.7.3.1 The EIA Directive requires an EIA to be completed '*in support of an application for marine consent for certain types of project*'. These are listed in Schedule 1 and Schedule 2 of the Directive. In relation to the META project, the requirements of the EIA Directive have been transposed into UK legislation through:

- The Electricity Works (Environmental Impact Assessment) (England and Wales) Regulations 2017[2] as amended by SI 2019/292 - The Electricity Works (Environmental Impact Assessment) (England and Wales) (Amendment) (Wales) Regulations 2019[3];
- The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017; and
- The Marine Works (Environmental Impact Assessment Regulations 2017 (the Marine Works Regulations).

1.7.3.2 These regulations are referred to in this Environmental Statement as 'the EIA Regulations'.

1.8 Need for EIA

1.8.1.1 Schedule A1 of the Marine Works EIA Regulations identifies development types that always require EIA. Schedule A2 identifies development types that require EIA if they are likely to lead to significant effects on the environment by virtue of factors such as their nature, size or location.

1.8.1.2 The proposed activities supported at the META project fall within the Schedule A2 category 13 "*Energy – Industrial installations for the production of electricity, steam or hot water*"; and category 20 "*Installations for hydroelectric energy production*".

1.8.1.3 Schedule A2 developments require consideration against the criteria set out in Schedule A2 of the EIA Regulations to determine whether EIA is required. The criteria include the characteristics of the project (including size, design and potential cumulative impact with other existing or approved projects), location of project (including consideration of environmental sensitivity of the area, relative abundance of natural resources, and the absorption capacity of the natural environment), and type and characteristics of the potential impact (including likely significant effect of the META project).

1.9 Content of the Environmental Statement

1.9.1.1 This Environmental Statement has been prepared in accordance with the EIA Regulations. The Marine Works (EIA) Regulations 2001 (ss amended), Schedule 3, sets out the minimum information to be included in the Environmental Statement. 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. For the avoidance of doubt, the specified information of Regulation 12 and Schedule 3 is provided in Appendix 3.1: Policy and Legislation of this Environmental Statement.

1.9.1.2 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.

1.10 Structure of the Environmental Statement

1.10.1.1 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 META project and the reasons for the choices made is found within chapter 3: Needs and Alternatives. Chapter 4 outlines the Environmental Assessment Methodology adopted for the EIA and details the Scoping Opinion received in relation to the META project. Chapters 5 through 16 contain topic by topic environmental information as outlined in Table 1.3.

1.10.1.2 Figures and tables to accompany the text of the Environmental Statement are provided within the main body of text 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 chapter 1: Introduction.

1.10.1.3 Cumulative Impact Assessments (CIA), inter-related and trans-boundary effects are topic-specific and as such are given in each topic chapter separately.

Table 1.3: Structure of the Environmental Statement.

Structure of the Environmental Statement	
Chapter number	**Chapter title**
	Non-Technical Summary (NTS)
Chapter 1	Introduction
Chapter 2	Project Description
Chapter 3	Need and Alternatives
Chapter 4	Environmental Assessment Methodology
Chapter 5	Coastal Processes

[2] http://www.legislation.gov.uk/uksi/2017/580/contents/made

[3] http://www.legislation.gov.uk/wsi/2019/292/contents/made

Structure of the Environmental Statement	
Chapter 6	Underwater Noise
Chapter 7	Benthic Subtidal and Intertidal Ecology
Chapter 8	Fish and Shellfish
Chapter 9	Marine Mammals, Basking Sharks and Otters
Chapter 10	Marine Ornithology
Chapter 11	Commercial Fisheries
Chapter 12	Shipping and Navigation
Chapter 13	Marine Archaeology
Chapter 14	Seascape
Chapter 15	Socio-economic and Tourism
Chapter 16	Other Users
Appendices	
Appendix 1.1	Statement of Experience
Appendix 1.2	Statement of Community Engagement
Appendix 2.1	Summary of Devices
Appendix 3.1	Policy and Legislation
Appendix 4.1	META EIA Scoping Report
Appendix 4.2	META EIA Scoping Opinion
Appendix 4.3	Overview of Main Points from META EIA Scoping Opinion
Appendix 7.1	Benthic Subtidal and Intertidal Ecology
Appendix 8.1	Fish and Shellfish Survey Data
Appendix 9.1	Marine Mammals, Basking Shark and Otter – WWBIC Sightings Data
Appendix 9.2	Marine Mammals, Basking Shark and Otter – UK Cetacean and Basking Shark Distribution
Appendix 10.1	Marine Ornithology – Data Report
Appendix 11.1	Commercial Fisheries Landings Data
Appendix 12.1	Navigational Risk Assessment
Appendix 13.1	Marine Archaeology
Appendix 14.1	Appraisal of Seascape Effects Methodology

1.11 The Applicant

1.11.1.1 MEW is an initiative set up and managed by PCF ('The Applicant').

1.11.1.2 MEW is a leading organisation in the Welsh marine energy industry with membership including worldwide technology developers, key stakeholders and supply chain companies.

1.11.1.3 MEW members highlighted the importance of a device/component testing area within the Waterway and adjacent waters, as a step to de-risking larger scale marine energy deployments and to speed up the time to commercialisation of technology. This expert insight led to the development of the META project.

1.11.1.4 Established in 2000, PCF is an award-winning CIC that works to protect the coast and marine environments in Pembrokeshire, for current and future generations[4].

1.12 The assessment team

1.12.1.1 The EIA has been managed by RPS, taking into account information provided by the Applicant. RPS is a registrant of the Institute of Environmental Management and Assessment (IEMA) Quality Mark.

1.12.1.2 All chapters have been authored by RPS with the exception of chapter 15: Socio-economic and Tourism which was authored by Hardisty Jones Associates and Appendix 12.1: Navigational Risk Assessment which was authored by Marico Marine.

1.12.1.3 A statement setting out how the authors have sufficient expertise to ensure the completeness and quality of the Environmental Statement is provided in Appendix 1.1: Statement of Experience.

1.13 Further information

1.13.1 Environmental Statement submission

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

- Pembrokeshire County Council (PCC) (Town and Country Planning Application);
- Natural Resources Wales (NRW) (Permitting Services); and
- Milford Haven Port Authority (MHPA) (Marine Works Licence).

1.13.1.2 The Licence applications, Environmental Statement and NTS can be viewed in hard copy at the following addresses:

Pembroke Dock Library
Water Street,
Pembroke Dock
SA 72 6DSW

[4] https://www.pembrokeshirecoastalforum.org.uk/

1.13.1.3 Electronic copies of the Environmental Statement and planning application documents can be viewed on the PCC, NRW and MHPA websites:

www.pembrokeshire.gov.uk
www.naturalresources.wales
www.mhpa.co.uk

1.13.1.4 An electronic copy (pdf) is available from the MEW team, please email meta@marineenergywales.co.uk to request access.

1.13.1.5 All comments on the Environmental Statement (and consent/licence applications) should be issued to the relevant regulatory authority at the address stated in paragraph 1.13.1.2.

1.13.2 Publicising the Environmental Statement

1.13.2.1 In accordance with the EIA Regulations, and as part of the licence application process, MEW will publicly advertise the availability of the META project licence applications, Environmental Statement and NTS by placing a notice in the local newspaper, the Western Telegraph, which has a wide circulation within the vicinity of the META project. In accordance with the EIA Regulations this notice will be published on two successive weeks.

1.14 References

Department for Business, Energy & Industrial Strategy (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 [11 February 2019]

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 [11 February 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 [11 February 2019]

Natural Resources Wales (2016). Environmental Permitting Guidance: Flood Risk Activity Quick Guide, October 2016.